OUR STATE ARMY AND NAVY

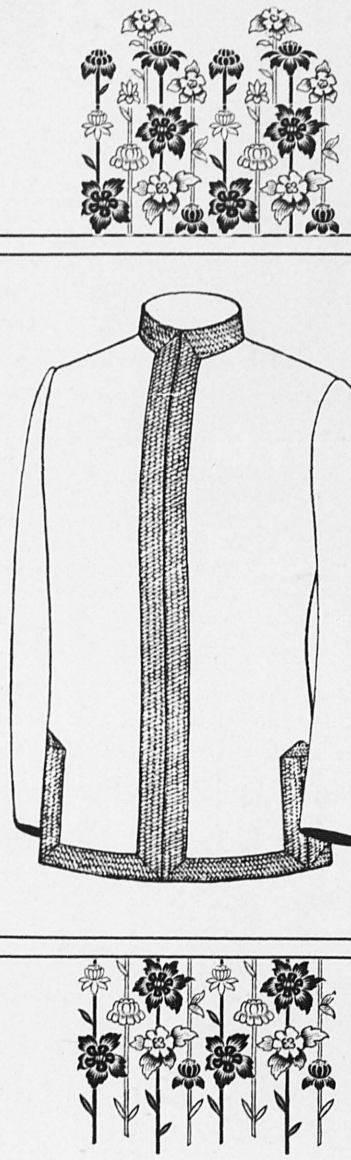
A JOURNAL FOR OUR VOLUNTEER SOLDIERS.

(Copyrighted.)

VOL. I—No. 8. PHILADELPHIA, OCTOBER 1898 TERMS: {$1.50 per year, in advance. Single copies, 15cents.

COLONEL DAVID BRAINARD CASE,

COMMANDING FOURTH PENNA VOL. INFANTRY



U. S. A.

New Regulation Caps

UNIFORMS AND EQUIPMENTS

FOR OFFICERS AND ENLISTED MEN

OSBORN

MAKER OF UNIFORMS OF ALL DESCRIPTIONS

SAMPLES AND ESTIMATES GIVEN

CORRESPONDENCE SOLICITED

MILITARY TAILOR AND OUTFITTER

1108 Walnut Street

PHILADELPHIA

Captains' Bonds

and Bonds for all other Officers of the National Guard, and U. S. A., and U. S. N., furnished at reduced rates.

Write or call for application blank.

Bonds for contracts and for fidelity furnished members of the National Guard at special rates.

National Surety Company of New York

711 DREXEL BUILDING

PHILADELPHIA

Officers

JOHN A. McCALL, Chairman of the Board of Directors

J. EDWARD SIMMONS, Chairman of the Finance Committ

CHAS. A. DEAN, President

STEWART BROWNE, Vice-Presid

THOS. F. GOODRICH, 3rd Vice-President

BALLARD McCALL, Secreta

HORNBLOWER, BYRNE, TAYLOR and MILLER General Counsel.

GEO. A. VANDEVEER, General Solicitor

GEO. A. VIEHMANN, Attorney Court Depot

J. P. STEFFNER, Superintendent Fidelity Departme

WM. C. BEER, Eastern Superintendent

ALEX. CREIG, Western Superintendent

J. E. PETTEGREW, Southern Superintende

Directors

HON. JOHN A. McCALL, President New York Life Insurance Compa New York.

HON. WM. B. HORNBLOWER, Hornblower, Byrne, Taylor & Mi Attorneys. New York.

CHAS. A. DEAN, Esq., President National Surety Co.

HON. PERRY BELMONT, Ex. Congressman and Ex. U. S. Minister Spain, N. Y.

HON. ROSWELL P. FLOWER, Ex. Governor, late of New York.

H. E. HUNTINGTON, Esq., Southern Pacific Co., San Francisco.

JAMES A. BLAIR, Esq., Blair & Co., Bankers. N. Y.

SAM. R. SHIPLEY, Esq., President Provident Life & Trust Co., Ph

GEORGE J. GOULD, Esq., New York.

CHAS. R. FLINT, Esq., Flint, Eddy & Co., South American Mer hant New York.

SIR WILLIAM C. VAN HORNE, K. C. M. G., President Canadian Pac Railway, Montreal.

STEWART BROWNE, Esq., New York Life Insurance Co., N. Y.

T. JEFFERSON COOLIDGE, JR., Esq., President Old Colony Trust Boston.

JOHN D. CRIMMINS, JR., Esq., President California Asphalt Co. New York.

A. B. HEPBURN, Esq., Vice-President National City Bank, N. Y.

HON. CHAUNCEY M. DEPEW, President N. Y. Central R. R., N. Y.

HON. J. McD. TRIMBLE, Gen'l Counsel K. C., P. & G. R. R. Kansas City, Mo.

ANTHONY N. BRADY, Esq., Capitalist, Albany and New York.

HON. FREDERIC R. COUDERT, Counsellor-at-Law, N. Y.

RICHARD DELAFIELD, Esq., Vice-Pres. National Park Bank, N. Y.

HON. HENRY C. PAYNE, Milwaukee.

FREDERIC BRONSON, Esq., Capitalist, New York.

B. P. CHENEY, Esq., Boston.

J. EDWARD SIMMONS, Esq., President Fourth National Bank, N. Y.

HON. R. WILSON SMITH, Mayor City of Montreal.

HON. RICHARD OLNEY, Ex-Secretary of State, Boston.

LESLIE D. WARD, Esq., Vice-President Prudential Ins. Co., New

S. READING BERTRON, Esq., Banker, New York.

PERCY T. MORGAN, Esq., Pres. California Wine Ass'n., San Francis

E. C. CONVERSE, Esq., Vice-President Nat'l Tube Works, N. Y.

W. L. ELKINS, Esq., Philadelphia, Pa.

WM. MACKENZIE, Esq., Capitalist, Toronto, Canada.

MARSHALL S. DRIGGS, Esq., President Williamsburgh City Fire Co., N. Y.

DANIEL A. HEALD, Esq., President Home Fire Ins. Co., New York.

E. F. C. YOUNG, Esq., President First National Bank, Jersey City, N

HON. GARRET A. HOBART, Vice-President of the United States.

WM. S. TAYLOR, Esq., Philadelphia.

EMERSON McMILLIN, Esq., Banker, New York.

R. T. WILSON, Esq., R. T. Wilson & Co., Bankers, New York.

EDWIN GOULD, Esq., New York.

ROBERT MACLAY, Esq., President Knickerbocker Trust Co., N. Y.

BERNARD M. SHANLEY, Esq., Consolidated Traction Co., Jer City, N. J.

BATTLE UNDER THE NEW CONDITIONS.

BY FIRST LIEUTENANT HENRY C. DAVIS, 7TH U. S. ARTILLERY.

SINCE the last great war, improvements have been made in fire-arms of all kinds, and in the ammunition used. What effect these will have is largely a matter of speculation. In 1866, the Austrians trusted greatly in their artillery, while the Prussian faith was pinned to the needle-gun. But of these arms came up to expectation; the former nearly destroying the centre of the First Army early in the day at Koeniggratz, and the latter turning the tide in favor of the Prussians on the right. The French in 1870 looked to the mitrailleuse and chassepot, while the Germans hoped, by a reconstruction of artillery methods, to gain the ascendency. In both these wars, each side rested its hopes on some special feature of its armament. Even knowing the results, is it possible to say that these hopes were well or badly founded when so many other factors entered. In the next war the chances are that no such difference in material will exist as heretofore been found in the opposing ranks. For this reason we may evaluate the new unknown quantities only by the law of probabilities.

LIEUTENANT COLONEL FRANK I. RUTLEDGE,
COMMANDING 18TH PENNSYLVANIA VOLUNTEER INFANTRY.

FACTS.

Closely following the great improvements in artillery and small-arms came:

1. Magazine rifles.
2. Small calibres.
3. Smokeless powder.

The effect of magazine rifles has been to increase greatly the number of rounds that may be fired in a given time. The rate, depending on the type, averages about twenty per minute. This gives very rapid fire, and if kept up will exhaust the supply of ammunition carried by one man in eight to ten minutes. The pieces grow very hot at this rate of firing, but, due to the special arrangements, may be handled even after firing 100 shots. In some types, the magazine may be cut off and the piece used as a single loader till the critical moment (Danish, English, French, Swiss); while in others (Austrian, Belgian, German), there is no cut off.

The calibre of the infantry has been steadily reduced and it does not yet appear to have touched bottom at 70 mm. The navy has adopted a .3 cal. rifle in 1893. This reduction has resulted in a flatter trajectory, longer range, and higher remaining velocity. From this we obtain an increased dangerous space, and, with present initial velocity, a shot, fired from near the ground, with the piece sighted for and aimed at an object 550 yards distant, will not rise above a man's head. The rifles are sighted for 2000 yards and over, and the German rifle bullet at that range will penetrate 2 inches of wood; more than sufficient to penetrate to the vital parts of man or horse.

With reference to the accuracy of the small calibres, Captain Blunt Ord. Dept., reports that of fifteen shots fired at a target twenty feet by thirty feet, range 2000 yards, from a 30 cal. rifle, twelve hits were made. The conditions were the most favorable.

Recoil is now less for several reasons, hence men can fire with much less shock to the system than formerly.

The ammunition is about one-third lighter, thus a larger supply may be carried. The Chileans carried 180 to 200 Mannlicher cartridges into action.

The noise of discharge is less now than formerly. This is attributed by some to the use of smokeless powder *per se*, but is most probably due to the small charges now used. This fact finds its most important bearing in reconnoissance and outpost duty (not considered in this paper).

The aggregate amount of noise on the battle-field will be about the same as before on account of more rapid fire of infantry, due to the repeating arms, and of the artillery, due to the absence of smoke, and because all shells will burst. The noise will be still sufficient, probably, to allow of marching to the sound of the guns, although the sound of the autumn manœuvres battles closely resembled that of a distant storm and might have been easily mistaken for it.

The new powder affects the conditions of battle in two distinct ways, viz.: by giving increased initial velocity to projectiles and by ridding the field of the presence of smoke, alike advantageous and disadvantageous, and always uncontrollable. The first increases the gains already noted under reduced calibre; the second requires special notice.

The new powder gives on burning no solid residue, and hence there is no smoke. The condensed gas, or probably the union of the nitrogen with the oxygen of the atmosphere, gives a vapor visible at short distances and rapidly dissipated. This vapor cannot be seen, at effective ranges, from either artillery or small-arms. An eye-witness of the Italian Manœuvres of 1890 says: "A battery remained in action half an hour without being seen." Again he says: "At 2500 yards a brilliant flash only is seen by the nacked eye and what to the field glasses seemed smoke was found to be dust raised by the blast."

With a moist atmosphere the vapor becomes more apparent but never obscures vision. The flashes from artillery become more apparent in the absence of smoke, but, unless looking directly at it, one finds great difficulty in locating the place exactly.

The new small-arms then:

Will kill over a more extended space:

Will kill at a greater distance:

Will fire a greater number of shots in a given time:

Will allow the carrying of a greater number of cartridges:

Will give no smoke to obscure vision.

GENERAL CONSIDERATIONS.

The increased range and accuracy of small-arms must inevitably win back some of the ground lost to artillery after the improvements in the manufacture and manipulation of that arm. The chassepots did some execution to batteries, in column, at 1800 yds., so it may confidently be expected that fire from the new rifle, under favorable conditions, will be quite effective against them at 1200 yards. This is more evidently true now that the smoke of battle no longer obscures the field of view. A line of sharpshooters, well posted, under cover, will make it very uncomfortable for any battery in that range, and, if nothing but their general direction is known, their dislodgement will be a serious question. A single Bavarian sharpshooter, in a tree at Sédan, annoyed a French battery very much, as his position remained undiscovered.

It is claimed, and justly too, that artillery in 1870, before the day of powerfull shrapnel, protected its own front against infantry attack, provided always that it was in action when attacked and that the advancing troops were seen at a sufficiently great distance. Will it be possible, even with

shrapnel, to *drive off* a line of skirmishers firing from no one knows where? It seems that the balance is somewhat restored under the new conditions.

Increased range in small-arms assures to a straight front a certain amount of flanking, provided the front is not engaged on its entire length; also bodies of reserves, if bountifully provided with ammunition, may fire from commanding positions in rear or on the flank, and, assisted by the artillery, give a strong covering fire for an attacking line or seriously retard the advance of a pursuing enemy.

Increase in range and rapidity of fire will make the flank attack more powerful and demoralizing. If the flank fire is delivered unexpectedly from good cover, and, furthermore if, due to absence of smoke, the assailant's position is not discovered, a very few rounds will tell on even the best of troops.

On the other hand, a flank attack will be more difficult to make; for a small force can contain the flanking party sufficiently long to prevent the movement being a surprise. If time is given to prepare for its reception, a flank attack, unless overwhelming, loses half its significance.

The magazine rifle of to-day is, so long as ammunition lasts, always loaded and ready to be fired. It was this characteristic possessed in a less degree, and in connection with increased range, that gave the needle-gun its superiority in 1866.

From early times shock tactics has been used. At first both sides were necessarily on the offensive; but, with the invention of missile weapons, particularly fire-arms, defensive tactics came to light. It was boldly asserted that this weapon would give a decided advantage to the defensive. To the theorist this has always been clearly proven from the consideration that the defense is stationary and partially protected, while the offensive is moving and unprotected. The former then can load and aim his piece more easily than the latter. Granted; but does not this very fact prove conclusively that all improvements in fire-arms, with reference to loading, aiming and firing, conduce to the equalization of advantages on the two sides? There remains, of course, the advantage of cover for the defense, but he is tied to it, and to gain any decided advantage he must quit it and in his turn take the offensive.

The flat trajectory and increased length of continuous danger space (550 yards), will prevent troops from advancing into this zone, till the opposing fire is broken down. This then seems to give the limit to the zone of decisive action.

The absence of smoke from the field of battle cannot change any principle of tactics, since it is but a covering or screen, differing from that given by natural objects only in the fact that it is impossible to avoid it when it becomes hurtful. This absence of smoke emphasizes the principle of "seeing and not being seen," since it renders the realization more possible. Smoke gives cover for manœuvres, and so lessens losses; it makes feasible the replenishing of ammunition and even sometimes, by concealing losses, sustains the morale of the troops. "The line of puffs gives the Commander-in-chief a clear idea of the position of the fighting line, the dense clouds indicating the position of the artillery." The direction of the blasts, shown by the smoke, often, after many movements of the troops, alone indicates to which side the firing line belongs.

On the other hand, in the absence of smoke, men see better and so judge distances better; they see what is before them, and, if intelligently brave, will advance the more readily. It is claimed that noise and smoke keep up the courage. If that is so, the effect is on the nervous system and men will, just as propably, imagine dangers that do not exist. Napier relates an incident of troops who, advancing bravely under a heavy fire to the very works of the enemy, broke in disorder at the false alarm of a mine

As a cover to the firing line, smoke is a disadvantage, for cover at the expense of accurate fire is stricktly forbidden by all modern fire regulations, and smoke prevents accurate fire to a greater degree than it gives cover. It is then a disadvantage to troops actually engaged, though beneficial to others.

In the absence of smoke, fire is more effective and orders are given and obeyed more intelligently. The whistle, already adopted, may be used to attract attention, and signals, clearly seen, may be given and understood. Men are more easily kept in hand; the fall of officers and non-commissioned officers is more quickly observed, and their places more readily filled. Surprises to the advancing line are less easily made as the dispositions of the opposing forces are less easily hidden. Natural cover is asily seen and the advancing line is directed on it. The direction of the wind often favors one side or the other, but when there is no smoke this element of chance is eliminated.

The artillery is probably more affected by smoke than any other arm Under cover of its own smoke, a battery sometimes changes position with out much risk, thus causing the enemy to lose the range, and, if at the sam time the opposing battery is enveloped in smoke, this alteration in range i not noticed. The ruse, often adopted, of changing position under cover o smoke, is no longer feasible.

To counterbalance these advantages derived from the presence smoke there are numerous disadvantages. Smoke prevents the accura sighting of the piece, or, at least, makes the firing slower; it prevents th observation of shots; it conceals the target, it gives a cover under whic infantry or cavalry may advance to short range before being discovered, a in the German manœuvres of 1879, when a regiment of lancers charged battery and were not seen till at 200 yards.

Smoke is specially annoying to artillery, due to the fact that it usuall fires a great many shots from the same position and the smoke collec around it. This is doubly distressing, as firing is its only means of defens and the benefits that should be derived from its accurate fire and long rang are lost to it. That artillery must be massed is a settled fact. Smok requires that guns occupy more space than otherwise needed, and Prin Kraft cites many cases where more guns were available than there was roo to put them; so they were crowded out. With no smoke, they will b crowded in.

Again, firing was begun on one flank or the other, according to th direction of the wind, and positions could not be occupied to the best ad vantage so long as smoke interfered with a good view. Absence o smoke will clear all this away. It will enable a battery to take a covere position and fire away for some time without its positions being discovered It has been suggested, as necessary to discover the position of such battery, that the direction of shot furrows be noted. Though not practica this indicates that fire from unseen batteries is expected in the future.

Without smoke we shall not, as at Sadowa, hear of infantry advancing unseen, to such short range that the artillery, unable to defend itself, i captured.

MORALE.

The principal changes in the conditions of the battle-field which affec morale are:

1. Everything not concealed by the terrain is clearly seen.
2. Losses may be sustained from an undiscovered source.
3. With increased range and accuracy, losses may be inflicted at greate distances.
4. With increased facilities for loading, a more spirited attack o defense may be made and ammunition sooner expended.
5. The difference in effect of the large and small calibres on th wounded.

How these changes will affect morale must also be evaluated by th law of probabilities. The Chilean war affords little information, as but on third of the Congressists were armed with the small calibre rifle (about 300 men); while none of the Balmacedists were so armed. To draw any con clusion from this is to fall into the very common error of noting an effec on a side which has not a corresponding advantage to support it morale. The aggressive use of artillery by the Germans is now accepted a the correct thing; but suppose their opponents had been equally and as wel prepared, what then?

To be able to return fire and that effectively, is a condition mos bracing to the morale of the troops. Vertical fire is always most tryin because it cannot be returned, and little shelter can be gotten from it Hence fire at long range from an unseen foe will certainly try the courag of the best of troops. It must not be allowed to continue, the enemy mus be discovered and driven off; or the field must be so occupied that n such position can be taken up by the enemy. Skill then must here protec morale or troops will falter.

Morale is fired off with the last cartridge, now so easily reached, an nothing but relief from fire or replenishing ammunition will restore it Skill must again come to the rescue and so control fire that ammunitio and necessity for using it will pass at the same time. Failing this, skil must devise some method of replenishing the supply. In both these case skill on the battle-field is referred to.

To counterbalance the moral effect of the other conditions, skill mus be used beforehand in instilling into the troops the idea that they have equal if not better, chances of success than their opponents. Troops must b taught to believe that they can and are doing at least the same execution a they see produced on themselves.

It is not "the number of men killed" that determines the combat, but the "number scared"—the number who believe themselves whipped or forced to retire. Otherwise a line could never be driven back by fire alone, for, so long as a single man remained unhit, the line, a thin one it is true, would remain.

But man is a gregarious animal, morally as well as socially. He needs something to support his courage; the "touch of elbow," even though methaphorically true, only gives the external support needed, while confidence in its own ability and that of his commander gives the inward.

It is often stated that a frontal attack cannot be made. Why? Is it because all the troops will be killed? Not at all, but because the morale will be killed. If this is true, should not all tactics look to the preservation of morale first and that of life second? Why is a flank attacked so fruitful of results, when the number of men actually killed *at first*, is less than for a frontal attack? It is because the troops so attacked *feel* themselves at a disadvantage—their morale is lowered. The same applies to a night attack where relatively few lives are lost.

The meaning of all this is that the morale plays a great part in all battle-fields, and that all tactics must take it into grave consideration.

It is claimed that the absence of smoke will allow troops to see comrades fall and their commanders taken away and hence will lower their morale. This is true, but tactical combinations must be so made that the skillful directors may quickly see these effects and counteract them, so far as officers are concerned, by filling the vacant places. The men must feel that what they see is also seen by those whom they trust, and that all possible care will be taken to abate the evil. This points directly to decentralization: the killing of a single man must affect fewer men on the firing line; there must be a greater number on this line authorized to take the iniative in the matter of assuming direction of affairs.

Few men, when struck, take the tragic attitude of the picture books, hence the loss of a commander's voice will probably sooner attract the attention of the men than the loss of comrades. The absence of smoke will then greatly facilitate the counteracting of this evil, provided that skill is used beforehand in making tactical combinations and, on the field, in carrying out what has been provided.

Absence of smoke will allow a better grasp on the combatants and will also allow the men to better feel this grasp. On the other hand, if not kept well in hand, troops will see it more quickly now than formerly and lose morale.

A clear view will allow a clearer insight into the enemy's line; if the fire is telling on him, the first waver will be detected and advantage taken of it; or, if he begins to advance, the first initiative can be seen and possibly nipped in the bud.

What does all this mean? Simply that the field is cleared for skillful action. The professional swordsman and amateur are on the same level when blindfolded and using crude weapons; uncover their eyes and give them good weapons, and the conditions are at once changed. The anxiety of workers in the dark is recognized by those who now doubt the practicability of firing all heavy guns by a central power, assigning as one reason that the strain on the nerves of the men serving the piece is too great while they are waiting for the unseen hand to touch the button.

Men must be taught that they are as good as their opponents (and care must be taken that they are). They must be confident of their ability to to handle their improved weapons skillfully. They must believe not only that the weapon is as good as any, but that they can get as much good out of it as any one else can. It is feared that in battle men will not use their sights and take aim before firing. If all have been taught how and the need for it, when battle comes, *some* will do so; if not taught, *none* will. In some recently published articles, target practice is described and a battle scene is depicted in which, so far as the description goes, there appeared to be nothing more than a whoop, a rush and a general confusion in which any lessons from the target range could have only been worse than useless and in which every man was as good as another. Without gainsaying this statement, as regards the old smoke methods, one can but fail to agree entirely with this view under the new conditions of battle.

Confidence in himself and in his ability to take intelligently all cover that enables him the better to use his piece according to his and its merit, must be deeply rooted in the mind of the soldier of the future.

The difference in effect on the nervous system of a hit by a large and a small calibre bullet is a matter that writers on the subject seem to ignore. With equal remaining velocities, the force stored up in the small is not quite half that in the large one. In order that the energy in the two may be the same, the velocity of the small bullet must be 50 per cent. greater than that of the large one: as this is about the increase expected for initial velocity in the United States, and as the sectional density of the two bullets is practically the same, the vm^2 at equal distances will be higher in the heavy than in the light bullet. On striking, the small bullet will experience less resistance, be more apt to penetrate entirely, and so afford less nervous shock to the wounded. No wound is so demoralizing to the spectators as that by the fragment of a shell, because the result is so ghastly. Now surgeons, in the Chilean war, report that the wounds from the small calibres are specially clean cut and but little blood flows; the wounds, moreover, are more easily and quickly cured, aud a smaller per cent. are mortal. A correspondent, writing from the field of battle, says that the new bullet should satisfy the philanthropist, for it either kills outright or not at all.

As a matter of morale, would it not be worth while, since we must face the dreadful rapid-shooters, to refer oftener to this fact than to the ability of the small bullet to penetrate two or three men? The proportion of hits to the number rendered *hors de combat*, will doubtless be the same, but the effect on those left will be less trying.

Again, will this small bullet stop a charging horse? A man hit will probably stop, but not so with a horse, unless he is killed outright. Hunters of game no larger than the horse use a heavier bullet than that of the old rifle; while with elephants, the explosive bullet is found necessary.

CAPTAIN LUCIEN M. WILER,
SECOND INFANTRY, U. S. V.

ARTILLERY.

Before the introduction of smokeless powder, two principles in the use of this arm seem to have been well established.

1. That artillery must act aggressively;
2. That it must be massed.

There seems to be nothing in the new conditions to change either of the above rules, and indeed the absence of smoke but enables them to be better carried out and adds to the results obtained.

The field gun is a weapon of precision, and must be carefully aimed. The clear atmosphere adds greatly to the possibility of doing this; more skill and less luck is required now than formerly. Batteries or even pieces, if desirable, may now fire entirely independently of each other and of the direction of the wind. They may fire more rapidly, not waiting for the

smoke to clear away. If the increased range of small-arms has rendered infantry a more formidable adversary, the absence of smoke has at least rendered it a visible one. Attacking lines can no longer, as in the past, approach to short range under cover of smoke.

More pieces may now occupy a given space, and may even, if the terrain permit, be placed in tiers without in the least interfering with each other.

Due to the absence of smoke in its own and in the infantry firing lines, covering fire may be the longer maintained.

The battery is a better target than formerly, but it is in more danger when coming into action than after it opens fire, and as it makes no smoke before firing, the advantage of smoke as a covering disappears, especially so, when considered in connection with its subsequent blinding effect on the gunners.

Being a better target, artillery must now doubtless endeavor to obtain all shelter compatible with its efficiency in firing. This means a more intelligent reconnoissance of the whole field, especially as to all possible artillery positions. Batteries must not run the risk, unnecessarily, of coming into action at points exposed to fire, possibly from unseen guns or skirmishers. (An artillery officer should make this reconnoissance.)

As soon as practicable, a line of skirmishers should be pushed out on flank and front, to prevent the hostile skirmishers from taking positions within effective small-arms range. This becomes more important as time goes on, for it is well-known that troops, earnestly engaged in front, often allow movements to pass unnoticed, which, under other circumstances would certainly be seen.

When practicable, guns will be unlimbered under cover and run into position by hand. They will, as in 1870, occupy the firing line, but the feat of unlimbering on that line, under heavy artillery and infantry fire, is today quite dangerous, hence to require it the necessity must be urgent.

It is folly to say that any given manœuvre is impossible, for on the battle-field all these rules are broken : the necessity for risking a sacrifice is all that is needed in order to have really good troops attempt anything. Artillery on the skirmish, or even on the firing line, may be a necessity to sustain the infantry morale : if so, let it go in, even though it is clearly seen that, except in special cases, it can really do little good as it marches forward. Its true place is in some well selected site, there to remain.

Pieces may be pushed forward to crown captured lines but, even under these conditions, its best place may be where it commands the captured line.

There is nothing in the new conditions to change the regulations as to the targets to be fired at, but it seems that the method of range-finding should be improved. A battery should not fire until it can hit, and this should be as soon after coming into action as possible : no more shots should be lost than necessary. To accomplish this the range must be more accurately approximated before firing is opened. This is the more important, since the artillery can then give the range to the infantry as it arrives on the line.

After the issue is joined, it would seem important that one piece, at least, occupy itself with finding the range to all the possible positions to the front and flanks, for, in the absence of smoke, a field of a mile and a half radiu may thus have any part of it suddenly covered with the projectiles of hundreds of guns.

It may, in the absence of smoke of bursting shells, be difficult to determine their point of fall : if this is true, range-finding shell filled with black powder may be used. Experience alone will determine ; book writers are silent on the subject.

Shrapnel will be effective at longer ranges than before, owing to the fact that, with high explosive filling, the velocity of the fragments and bullets is more independent of the remaining velocity of the shell. For the same reason shrapnel will be more effective in searching cover.

INFANTRY.

Frontal attacks have been made in the past and will be made in the future ; it will be fatal to teach the contrary to any army. Flank attacks will be made as heretofore and, as heretofore, must be accompanied by strong attempts in front. Troops must expect to be called on to make these attempts, and also schooled to bear heavier losses than heretofore in doing so. A greater responsibility rests with the commander ; he must be fertile in expedients and make no blunders.

In what formation shall the attack be made ? No cast-iron rule can be given. Each nation must decide for itself. The character of the troops, their morale and their traditions enter the problem. It is said that Napoleon was forced, by the deteriorated condition of his later levies, to use the column attack to a greater extent than he believed in.

The column attack has passed, but there are advocates of a closed line attack,—an elbow-to-elbow advance.

Since fire tactics replased that of shock, every endeavor has been to obtain a greater development of fire, and the front will now be as thoroughly covered with men as the free use of their weapons will allow, even approaching an elbow-to-elbow advance. The advance is clearly seen and the opposing fire will be withering ; the return must be equally so. All cover possible, not detrimental to accurate fire, must be taken ; subcommanders must be skilled in selecting such cover and in getting men out of it when the time comes to advance.

Firing by one section of the line to cover the advance of the other will have less effect now than formerly, as there will be nothing to indicate to the enemy which section is firing (unless its front be considerable), and so the return fire will not be specially directed on that one. The line must go forward in small units and the exact time of advancing and stopping must rest largely with those lowest in command.

The decisive fire, for reasons already given, will begin at 600 or 700 yards. Volley firing will be impracticable except at long ranges ; the skill of the troops, the character of the target, and the available ammunition will determine its use. The moral effect of a volley may be worth considering, but its efficiency cannot be more than 75 per cent. of that of individual firing ; giving to good, cool shots an opportunity to do excellent work.

Every conceivable opinion has been put forward relative to the rate of advance of the firing line as well as to its formation. Some argue that the rate, slow at first, should be accelerated, and that the line, without stops, should move upon and into the enemy's position. Others hold that the advance by rushes is correct, but that the halts should be long and frequent at first, allowing good shots to get in their work ; the number and length of halts must increase as the line advances, the firing here being done more at random. Still a third idea is just the reverse of the last. All agree to the final rush when the way has been prepared. A happy mean seems the best course ; when the ground is open and no shelter exists, advance rapidly ; in firing use the magazine. When shelter is afforded, make intelligent use of it ; fire less rapidly and more accurately. Heretofore reserves and supports were, to a great extent, hidden from view by smoke, and little or not direct firing was done on them ; new reserves, in rear, may occupy themselves entirely with this target, and, with the artillery, may produce considerable havoc there.

Since reserves and supports must be kept well in hand, their deployment must be postponed as long as possible, varying in each case ; due to accuracy of artillery fire and the penetrating capacity of the small-arm bullet, it would seem that extension in depth should be sedulously avoided before deploying they should be in line and in single rank. Deployment will take place, not at any fixed number of yards, but, according to circumstances.

The battle tactics, in the U. S. drill regulations, is good ; some of the details and the wording of some of the commands might be improved on or omitted ; these, however, are unimportant, and will be corrected in battle.

So far as Infantry is concerned, the new conditions have made both offense and defense more difficult without, on the whole, giving any material advantage to either. All cases will give rise to circumstances which skillful leadership, on either side, may turn to advantage. That side which is quickest to see and most skillful to grasp will get the best of it.

CAVALRY.

Recent changes have enhanced the value of good cavalry while worthless cavalry will be more in the way than ever.

The mobility of cavalry gives it its power. It must be here, there and anywhere ; not only before a battle, but during and after it.

As information as to the enemy is of more importance to the Commander-in-chief than ever before, the cavalry must be able to furnish all that is necessary, and at the same time keep up a screen against the enemy's scouts and patrols. To "see and not to be seen" is as important before a battle as during its progress, and after the battle too, if the best results are expected from a victory. It is already required that artillery be attached to cavalry : if, in addition to this, the cavalry is armed with a long-range carbine which it knows how to use, the supporting column of light infantry usually attached for important expeditions, may be left behind with a gain of mobility. This reconnoissance work is of the utmost importance, and

he proper performance of it will bring more credit to the arm and be of nore importance to the Commander-in-chief, than anything else that it an do.

It has been noted that all artillery will push to the front to open the ombat ; also that it will there be in danger from unseen infantry, and will eed a cordon about its front and flanks. If infantry is to supply this uard, the artillery must do without it or wait till the infantry can get up. Here seems on opening for carbine cavalry ; it can even precede the artillery nd find out just what is before it. With this cavalry will ride the artillery fficer who is to make the reconnoissance and fix upon the artillery ositions.

As soon as any serious resistance is met, the cavalry dismounts and hrows out a line of skirmishers in front of the proposed positions. These nay or may not be relieved when the infantry gets up. The opposing force will, of course, do the same thing, and skill in this preliminary work will ell in the subsequent battle.

During the battle, the cavalry will have its hands full in watching he flanks of its own army, and in demonstrating on those of the enemy. The exact progress of the Crown Prince at Koeniggratz should have been known to Benedek, and his arrival should not, as regards time, have been n the least a surprise.

It seems useless to discuss the ability of cavalry to attack infantry successfully on the battle-field, when there are so many more important duties awaiting it. A similar case would be the feasibility of cutting up the winter's supply of wood with a razor, forgetting the while that, the feat being performed, one must either go unshaven or perforce use the axe for hat purpose. There is no question of bravery with the cavalry, but, in his day of advanced methods employing perfected material, each arm is used to its utmost extent and in that work which it is most fitted to perform.

If infantry has been shaken, there is no question of cavalry's overtaking it and harassing it more than footmen can ; this is directly in line with he cavalry's work—to pursue, overtake and keep contact with the retreating infantry, is the part of a cavalry which hopes, efficiently, to play the art of information bureau.

If cavalry is to be able to attack unshaken infantry, it must have at least the same front as its opponent, and must move to the attack in a boot-to-boot formation. Even the advocates of this do not hold that the cavalry will attack infantry in sight, but that it will do so at a favorable time. Where will this large body of cavalry be kept beforehand? for, as long as it s within a mile and a half of the artillery, unless hidden by the terrain, it will be continually harassed by the now accurate fire of that arm, and when it begins its charge, no better target could be asked for for the guns and neighboring masses of infantry with their long-range rifles. The air is now clear, and all infantry and guns within 2000 yards may participate in he fire, and we might easily have a Balaclava on every battle-field.

Cavalry has not, in spite of some writers, "sung the song of the swan," on the contrary it is more necessary than ever ; but, like the artillery, it must drop some of its traditions and, in this day of specialties, recognize, hat, in any complicated mechanism, each element is specially fitted for and must perform a single part, supporting and supported by the others.

There are circumstances when a sacrifice is called for : in this case "be sure you're right, then go ahead ;" use the razor on the wood pile, expecting its ruin.

MACHINE GUNS.

Theoretically, these guns should take the place of whole companies of infantry, but, practically they do not seem to work. They are complicated and liable to fall at the critical moment. They are not infantry, neither are they artillery : if sent on the firing line, the artillery will easily knock them out : if kept behind, they cannot be ranged.

Circumstances have arisen when they might have proven very valuable. But how can they be kept on hand when needed, and out of the way when not? They were not successful against a civilized enemy, nor were they more so against the savage Soudanese, and they do not seem to have hit anything at Alexandria.

They may be successful in more or less permanent works, but what their future reach is, is too problematic to predict.

SIEGE OPERATIONS.

"The absence of smoke allows the besieger to establish his guns of the first position, for indirect fire, more securely hidden from the besieged. At this stage the advantage is with the assailant. The nearer the approach, the less evident is this advantage : at the assault, the new conditions give the advantage to the defense, if he is still in condition to use it."

"The guns will longer occupy the first position, and, indeed, the heavier calibres may not be moved up at all, the demolition being completed at that range."

SUMMARY.

1. Infantry will, at all times, be more dangerous to artillery, and will not depend on the accident of smoke, etc., to be a very formidable assailant to that arm.

2. Flanking fire is obtainable from straight lines : good flank attacks will be more effective though more difficult to make.

3. Improvements in small-arms, thereby increasing facilities for loading and firing, inure to the benefit of the attacking troops.

4. Increased danger space has put back the line of decisive action.

5. Smoke is advantageous to the Commander-in-chief and to all troops not firing, but a disadvantage to the firing line : and conclusively.

6. The artillery arm is the one most affected by smoke, and the advantages derived from its absence greatly overbalance the corresponding disadvantages.

7. The usefulness of cavalry is increased but its role is changed.

8. In siege operations, the new conditions give the advantage to the assailant during the first stages, afterwards to the besieged.

9. The future of machine guns is still too uncertain to predict.

CONCLUSION.

The greater the skill of the troops and of their commanders, the greater are the advantages accruing to them under the new condition.

To him that hath shall be given.

Credit:—It would be difficult to give credit to authors whose views may appear above, as the foregoing consists of the ideas formulated in my mind after reading much of the mass of current literature on this subject, and, after giving the subject much thought, mingling my own ideas with those of others.

CAPTAIN M. H. SMITH.
FOURTH PENNSYLVANIA VOL. INFANTRY.

OUR STATE ARMY AND NAVY
A JOURNAL FOR OUR VOLUNTEER SOLDIERS.

Entered according to act of Congress, in the year 1897, by CHARLES J. HENDLER, in the office of the Librarian of Congress, at Washington, D. C.

Entered in the Philadelphia Post Office as second-class matter.

PUBLISHED MONTHLY BY

CHARLES J. HENDLER,

PHILADELPHIA, PA.

Office, 1103 Betz Building.

VOL. I. OCTOBER, 1898 NO. 8.

SUBSCRIPTION RATES

$1.50 per annum, six months 75 cents, payable in advance. Subscriptions may be sent by Express, Draft, Money-Order or Registered Letter. Do not send checks on Local Banks; send Draft on New York or Philadelphia. Make all remittance free of Exchange, and payable to *CHARLES J. HENDLER.* Postage Stamps are not desirable, but if necessary to remit them, one-cent stamps are preferred. Currency forwarded in unregistered letters will be at senders risk.

ADVERTISING RATES

Furnished on application. The value of this Journal can be seen at a glance. If you have anything that Soldier's should be interested in, this is the proper place to display it.

A Peace Jubilee edition will be issued replete engravings and a complete history of every organization taking part. These will be placed in the hands of every volunteer and National Guardsman of our State, as a Souvenir of the American-Spanish War.

ONE of the provisional companies acting as escort to the First Infantry on its return displayed its ignorance of all military bearing when it attempted burlesqueing on South Broad Street, the officer in command stood by and his gestures seemed to encourage the "circus." Actions of this kind are prejudicial to good discipline and should be treated severely.

AN officer in command of one of the escort companies on the return of the First Infantry failed to salute in passing the reviewing stand at the Union League. It was a very noticeable error, and the officer in question should refer to the ceremonies in his "Army Regulations."

A rousing reception was tendered the First Sheridan Troop on its return by the citizens of Tyrone. Major C. S. W. Jones is now in command of Pennsylvania's Squadron and is the veteran of two wars.

THE reception tendered the Philadelphia Regiments by the Citizens' Committee of Councils was characteristic of our Quaker City's patriotism and hospitality, a grand tribute to her noble volunteers. Mayor Warwick was indefatiguable in his efforts to make it a rousing success.

FEW captains in the Volunteer Infantry service can boast of having four lieutenants, such is the case, however, with Captain Caldwell K. Biddle, of Company "G," Third Infantry. His two first lieutenants are David Lewis and Anthony F. Machold, and the second lieutenants Oliver Hough and James Robinson. With the exception of lieutenant Machold, who at present holds only a State commission, they are in both the United States and State service.

THE official records of the War Department as far as completed show that there were thirty-three officers and 231 enlisted men of the army—264 in all—killed in battle during the war with Spain. These casualties include all the lives lost by the army in the battles in the Philippines as well as those in Cuba and Porto Rico.

The percentage of officers killed is strikingly large and is said to be unprecedented in the battles of the world. The contrast is especially striking in the case of the battle of Omdurman, where although, the loss of life was heavy, the list of killed included only one officer of the British army.

14TH REGIMENT SHUTS OUT 114TH.

THE Fourteenth Regiment, of Brooklyn, has a fight at home. It is the same trouble that has been experienced by every returning regiment whose place at home has been taken by provisional troops. The question is: Who shall hold the armories?

When the regiments were sent away in the service of the Government they ceased to be State troops, and so lost the legal right to their armories. They were assured, however, by Adjutant-General Tillinghast at the time the call for volunteers was made that the armories would be turned over to them when they came back from war.

Afterward the State called for volunteers to make up the militia. Then came the formation of the "hundred" regiments. and in some cases the "two hundreds." These were recruited at the armories with men belonging to the old regiments as a nucleus. They were mustered into the service of the State and to them was given possession of the armories.

The returning regiments found their armories filled and as the men in possession were State troops, while many of the home comers had not been mustered out of the United States service, the complications began. Trouble was caused between the Ninth and One Hundred and Ninth and Seventh and One Hundred and Seventy-first, and now the fight for possession is on between the Fourteeth and One Hundred and Fourteenth in Brooklyn.

The Fourteenth returned on Friday, and Colonel Wilder found Colonel Britton and the One Hundred and Fourteenth in charge of the armory. Colonel Wilder lost no time in getting the best position, and once in possession of the armory, he refused to yield to Colonel Britton. Sentries of the Fourteenth were posted at every entrance of the building, with orders to admit no civilians and no members of the One Hundred and Fourteenth.

Lieutenant George A. Brower, regimental adjutant of the One Hundred and Fourteenth, called at the armory and tried in vain to explain that he had business matters to attend to, and must enter. He was kept out and now Colonel Britton is wondering what move to make next.

THE FIRST USE OF SMOKELESS POWDER.

PEOPLE have heard more about smokeless powder since the beginning of hostillities between Spain and the United States than they ever since its existence as a factor in warfare or as a source of great satisfaction to the sportsmen. Smokeless, or ultro powder, is far more extensively manufactured in this country than one would suppose, since the army and navy were very short on the supply necessary to the requirements of the big guns. In fact, very little of the smokeless powder was used by the navy or the field batteries of our army.

"Notwithstanding the fact that foreign manufacturers of smokeless powder were better supplied at the time we began to lay in supplies of it than the American makers, there are dozens of smokeless powder mills," says George H. Rawlings, who has handled the nitro powder ever since it was introduced for shotguns and rifles. "American makers of smokeless powders had not paid a great deal of attention to the manufacture of it for use in guns of larger calibre, like the armament of the navy or the cannon of the land forces, but America leads the world in the making of nitro powder for sporting purposes.

"The first attempt in this country at experimenting in the compounding of chemicals for the manufacture of wood powder was made in St. Louis by an old German named Dolde. Dolde put in much of his spare time in experimenting with smokeless powder, and lost several fingers in his efforts to solve the problem.

"On five different occassions the persistent old inventor went away to his improvised laboratory, and after several hours' work would return minus a finger. During the years he labored to perfect the smokeless powder he managed to have five fingers blown off, but he did not seem discouraged, and finally made a powder that was smokeless, but it would take

a torchlight procession to ignite the stuff when in a gun or in shells. What became eventually of Dolde and his smokeless powder I don't know, but but his experiments set others thinking.

"The Schultz powder, which was made in Europe, found its way to this country, and it gave such universal satisfaction, and the demand became so great that the company come with its plant to this country. The Schultz was a very strong shooting powder and as quick as the black article.

In Memoriam.

CAPTAIN Martin H. Smith, 4th Penna. Vol. Infantry, commissioned Captain U. S. Vol., May 5, 1898, died September, 1898. Captain Smith entered the State service January 19, 1880, in Company H, 11th Infantry, now Company "C," 4th Infantry, was appointed Corporal, June 20, 1881, Sergeant July 24, 1882. Honorably discharged April 21, 1884. Re-enlisted June 15, 1888. Corporal November 4, 1889. First Lieutenant and Inspector of Rifle Practice, July 12, 1890. Re-appointed January 1, 1891, and December 18, 1895.

He was one of the best men that ever graced the uniform of the National Guard of Pennsylvania, and his death is a loss that will be very difficult to fill. Captain Smith's portrait appears on page 7 of this issue.

CAPTAIN O. Hillard Bell, commissioned Captain U. S. Vol., May 5, 1898. Died September, 1898. Captain Bell entered the State service April 1, 1884, and was immediately appointed Corporal, Company D, 9th Infantry. Sergeant July 7, 1885. First Sergeant September 2, 1888. First Lieutenant December 8, 1890.

He has seen much service in the National Guard, and was in all respects an efficient practical solder. Captain Bell's portrait appears on page 11 of this issue.

CAPTAIN LAZARUS DENISON STEARNS
NINTH PENNA. VOLUNTEER INFANTRY.

Commissioned Captain U. S. V., May 5, 1898
Died September 7, 1898.

Strict and just in the performance of military duties which combined with his courage and kindness of manner, won for him the universal and affectionate regard of all who served with him.

He was the son of Major Irving A. Stearns.

Personal Mention

CAPTAIN Artemas W. Deane, 1st Infantry, is recuperating.

MAJOR H. C. Groome, 3rd Infantry, is slowly improving from an attack of Tampa fever.

CAPTAIN B. B. Osborn, 3d Infantry, who is troubled with Hay fever is much improved since his return.

COLONEL John Biddle Porter, 2d Infantry, looked very distinguished with his full beard.

MAJOR David Lewis is about again after a severe attack of Camp fever, and is ready to assume his division duties.

LIEUTENANT-COLONEL William J. Elliot, 6th Infantry, made a fine field officer and is much esteemed by his command when the Guard is reorganized.

THE Fencibles should be allowed to recruit to a full regiment.

MAJOR Brazer is a through officer and in a short time could present one of the best officer commands in the State.

MAJOR D. B. S Chew, 20th Infantry, is a very promising field officer and quite popular with the line.

LIEUTENANT-Colonel Thomas J. Powers, 19th Infantry, looks the typical American officer in uniform.

A most efficient Quartermaster for the first Brigade would be Major H. J. Crump. There is none better in the Volunteer service.

MAJOR W. S. Allen, 1st Infantry, is a very popular officer—always looking after the comforts of his men.

SHOULDER straps with the Eagle device would be a fitting compliment to Lieutenant-Colonel Frank I. Rutledge, 18th Infantry.

WE wish to extend our sincere sympathy to Colonel C. Bow Dougherty, 9th Infantry, in the sad loss of his line. Captain's Bell and Stearns places will be hard to fill.

CAPTAIN Albert G. Beeson, 17th Infantry, is an old National Guard officer and we are pleased to see him continue.

READING should have a Battalion or at least two Companies. Company A, 11th Infantry (Captain H. W. Philippi), might be attached to the 4th Infantry.

WE are indebted to Captain Stewart L. Barnes, 7th Infantry, for his kind interest in furnishing the Journal with photographs of deceased officers.

BENKERT & Co., Philadelphia, made all the top boots for Battery "A."

BATTERY "F" is well officered—Captain H. Eury H. Quimby was Quartermaster under our late Captain Denithorne and proved a valuable and competent officer.

CAPTAIN John C. Groome, First Troop P. C. C., deserves great credit in the manner in which he looked after the wellfare of his command. The health of many man was preserved only through his constant watchfullness and persistence. After each drill or march he would compell the troopers to change their wet clothes and keep under shelter during the warm nights in their Porto Rican campaign.

THE boys in the Naval Reserves like to joke about Lieutenant Muckle's "Flying Squadron." All the same, he was in absolute command of it for several hours.

THE promotion of Colonel Thomas Potter, Jr., to Quartermaster General of the State is a well deserved promotion, he is the right man in the right place.

LIEUTENANT-COLONEL Sanford C. Lewis has been appointed Assistant Quartermaster General.

MAJOR Charles E. Brazer, commanding the State Fencibles, and Lieutenant E. Clinton Rhoads, of the Naval Reserves, were given a delightful reception on the 13th inst. by the members of the Old York Country Club at their Club house at Oak Lane Station.

OUR best wishes are with Major Stevens and his "Invincible" organization.

THE cuts of Captain Dyson and Company were kindly loaned by the Every Wednesday Publishing Co., Pottsville, Pa.

ARMY CODE.

AS USED BY U. S. SIGNAL CORPS.

THE MYER SYSTEM FOR U. S. ARMY AND U. S. NAVY SIGNALING (PRESCRIBED BY G. O. No. 32, A. G. O., 1896, U. S. WAR DEP'T.)

REVISED EDITION, 1897.

A	22	J	1122	S	212
B	2112	K	2121	T	2
C	121	L	221	U	112
D	222	M	1221	V	1222
E	12	N	11	W	1121
F	2221	O	21	X	2122
G	2211	P	1212	Y	111
H	122	Q	1211	Z	2222
I	1	R	211	tion	1112

NUMERALS.

1	1111	2	2222
3	1112	4	2221
5	1122	6	2211
7	1222	8	2111
9	1221	0	2112

ABREVIATIONS.

a	after	n	not	ur	your
b	before	r	are	w	word
c	can	t	the	wi	with
h	have	u	you	y	yes

CONVENTIONAL SIGNALS.

End of a word 3
End of a sentence 33
End of a message 333
xx3 . . . numerals follow (or) numerals end.
sig 3 . . . signature follows.
Error 12 12 3
Acknowledgment, or understand " 22 22 3
Cease signaling . . 22 22 22 333
Wait a moment 1111 3
Repeat after (word) . . 121 121 3 22 3 (word)
Repeat last word . 121 121 33
Repeat least message 121 121 121 333
Move a little to right . 211 211 3
Move a little to left . . 221 221 3
Signal faster 2212 3

CODE CALLS.

I C U—International Code Use.
T D U—(Navy) Telegraph Dictionary Use.
G L U—(Navy) Geographical List Use.
G S U—(Navy) General Signal Use.
N L U—Navy List Use.
V N U—Vessel's Numbers Use.
C A U—Cipher "A" Use
C B U—Cipher "B" Use
C C U—Cipher "C" Use
} These calls are for preconcerted use in or with the Navy.

INSTRUCTIONS FOR USING THE SYSTEM.

The whole number opposite each letter or numeral stands for that letter or numeral.

TO SIGNAL WITH FLAG, TORCH, HAND LANTERN, OR BEAM OF SEARCH LIGHT.

There are but one position and three motions.

The first position is with the flag or other appliance held vertically, the signalman facing squarely towards the station with which it is desired to communicate.

The first motion ("one" or "1") is to the right of the sender and will embrace an arc of 90°, starting with the vertical and returning to it, and will be made in a plane at right angles to the line connecting the two stations.

The second motion ("two" or "2") is a similar motion to the left of the sender.

The third motion ("front," three or "3," is downward directly in front of the sender, and instantly returned upward to the first position.

Numbers which occur in the body of a message must be spelled out in full. Numerals may be used in signaling between stations having naval signal hooks, using the code calls.

The beam of search light will be ordinarily used exactly as a flag, the first position being a vertical one.

To break or stop the signals from the sending station, make with the flag or other signal 12 12 12 continuously.

To use the torch or hand lantern, a footlight must be used as a point of reference to the motion. The lantern is more conveniently swung out upwards, by hand, from the footlight for "1" and "2" and raised vertically for "3."

TO SEND A MESSAGE.

To call a station, signal its call letter until acknowledged; if the call letter be not known, signal "E" until acknowledged. To acknowledge a call, signal "I understand," followed by the call letter of the acknowledging station.

Make a slight pause after each letter and also after "front." If the sender discovers that he has made an error he should make 3 followed by 12 12 3, after which he begins the word in which the error occured.

FLASH SIGNALS, WITH LANTERN, HELIOGRAPH, OR SEARCH LIGHT.

Use short flash for "1," two short flashes in quick successsion for "2," and a long steady flash for "3." The elements of a letter should be slightly longer than in sound signals.

The first position is to turn a steady flash on the receiving station; the signals are made by alternate obscuration and revelation.

To call a station, make the call letter until acknowledged. Each station will then turn on a steady flash and adjust. When the adjustment is satisfactory to the called station it will cut off its flash and the calling station will proceed with its message.

If the receiver sees that the sender's mirror needs adjusting he will turn on a steady flash until answered by a steady flash. When the adjustment is satisfactory the receiver will cut off his flash and the sender will resume his message.

To break the sending station for other purposes, turn on a steady flash and call for repeat etc., as occasion requires. All other conventional signals are the same as for the flag.

SOUND SIGNALS, WITH FOG WHISTLE, FOG HORN OR BUGLE.

Use one toots (about half-second) for "1," two toots (in quick succession) for "2," and a blast (about two seconds long) for "3." The ear and not the watch is to be relied upon for the intervals.

The signal of execution for all tactical or drill signals will be one long blast followed by two toots in quick succession.

In the use of any other appliance, such as a bell, by which a blast cannot be given, three strokes in quick succession will be given in place of the blast to indicate "3."

When more than two vessels are in company, each vessel, after making "I understand," should make her call letter, that it may be certain which vessel has acknowledged.

ADDITIONAL INSTRUCTIONS.

Each word, abbreviation, and conventional signal is followed by "3."

To start the sending station signal 121 121 3 22 3 followed by the last word correctly received; the sender will resume his message, beginning with the word indicated by the receiver.

To acknowledge the receipt of a message signal 222 2 3, followed by the personal signal of the receiver. Each station should have its characteristic *call letter*, as Washington, W., and each signalist his *personal signal*, as Jones, Jo.

The full address of a message shall be considered as one sentence, and will be followed by the signal "33." This code is prepared from latest instructions issued by the Chief Signal Officer, U. S. Army. It replaces all preceding and undated codes, which should be destroyed.

CORRESPONDENCE.

Editor, "Our State Army and Navy":—I have a wager with a brother officer as to the portrait on the new $50 note. Kindly inform me whose portrait it is. L. M. T., 1st Lieut. 13th Infty.

Anwer.—We cannot decide without seeing the $50 note. If the Lieutenant will send it on we will gladly give the desired information.

THE TWELVE APOSTLES.

THE City Troop looked very imposing when they came home from Porto Rico—said the Old-Timer, "but I remember the time when they only appeared a dozen strong. It was back in the 60s, when Fairman Rogers was captain of the famous organization. Lieutenant Frank Maher was the wag of the troop and the most popular man in it. With his snow white-hair and mustache he looked like a marshall of the French Empire. One day the Troop was assembled for drill and only eleven privates put in an appearance. Maher, who was calling the roll, remarked: 'Only eleven. Where is the twelfth apostle?' In a moment or two the missing apostle appeared and the twelve were recorded as follows: Peter A. Brown, William Borthwick, afterward lieutenant in the Sixth Cavalry, and killed in Texas; John Grigg, Harrison De Silva, R. J. R. Walker, Stephen Souder, Robert E. Randall, Henry French, A. L. Snowden, James West, Harvey Goddard and Peter P. Breen. On several subsequent occassions exactly the same number appeared at drill, and for a long time the famous organization was known as the 'Twelve Apostles' On another occasion just prior to the civil war the Troop was ordered to report for drill on an open lot on Broad Street, now occupied by Horticultural Hall. Back of the Academy of Music was another open lot. The officers assembled promptly and waited for the men. A private rode his horse down Locust street and crossed over back of the Academy and dismounted. Removing his helmet, he peeped around the corner of the building, and observing that no other private had appeared, remounted his horse and rode away. There was no parade that day. By the way, it's a remarkable fact that the Troop never had attached to it a 'sabertache,' an organization of ex-troopers in honorable standing such as exist among the cavalry bodies abroad. Such an association would contribute largely to the esprit de corps of this historical troop.—*Phil'a Record.*

GREATER New York made no offort to officially entertain its returning volunteers, in fact little or no display was made by the general public.

ATTENTION of our officers is invited to Mansfield military riding trousers. Nothing like them for service and fit.

AT EL CANEY.

BLAIR, a regular, said to be of the 17th, was shot through the groin at El Caney, July 1. Two wounded men of the 71st New York fell beside him in worse shape than he. They could not move. He could a little.

A Spanish Sharpshooter on their right had the range of them as they lay there, their comrades having pushed on. Although down, the three men were his target.

"Spit!" and one of the bullets cut a lock of hair from Blair's forehaed.

"Spit!" again, and one of the New Yorkers winced as his shoulder was cut.

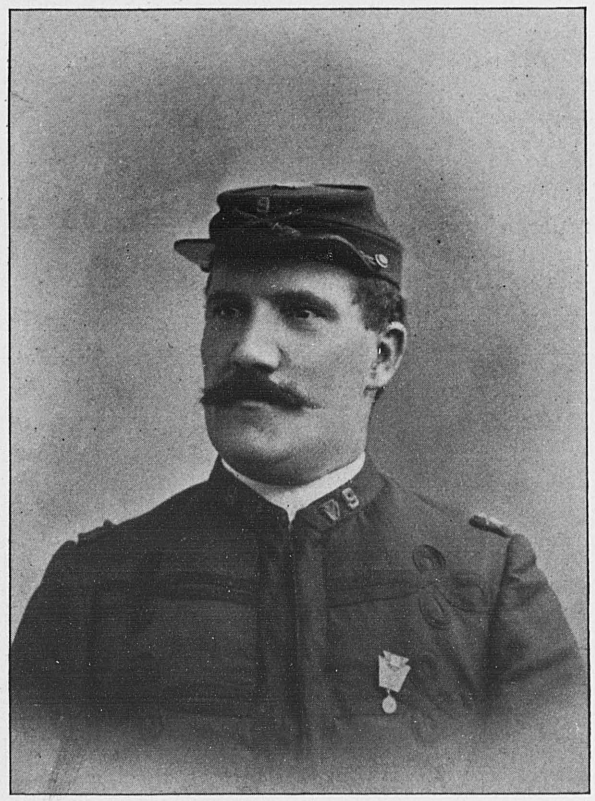
Blair for a time could not locate the fellow, but finally discovered him 300 yards distant up a tree. He was incautious and displayed himself in taking aim. Blair had his gun beside him and with one shot brought him down.

Then, wounded in the groin as he was, he crawled 900 feet to his enemy to get his canteen of water and 900 feet back, not touching it himself, and poured it down the throats of the two New Yorkers.

He died holding the drink to the lips of one of them. His only remark as to his journey was:

"I'm a regular. You fellows have homes."

One of the New Yorkers survived to return home and tell the story of this heroe's end.—*Chicago Times-Herald.*



CAPTAIN O. HILLARD BELL,
COMMISSIONED CAPTAIN U. S. VOLS., MAY 5, 1898.—DIED SEPTEMBER 1898.

RECEIVED THEMSELVES.

THE old United States steamer St. Louis at her anchorage at Queen street wharf was last night transferred into a veritable banquet hall by the Pennsylvania Naval Reserves. They received themselves, and one of the officers expressed it, The echo of cheer after cheer, which emanated from the old frigate, could be heard for squares away, and told of the good fellowship which existed among the reserves.

MEDALS AND MARKMENS' DECORATIONS.

THE distinctive badges or medals, adopted by military societies composed of men who served in the armies and navies of the United States in the War of the Revolution, the War of 1812, the Mexican War or the War of the Rebellion, may be worn with uniform, upon all occassions of ceremony, by officers and enlisted men who are members of such societies in their own right or by right of descent.

With the exception of the badges and medals mentioned above, and such others as may from time to time be authorized in orders by the Adjutant General, or such distinctively military decorations as may have been won by officers and enlisted men in service other than that of the State and which have been duly authorized by the Adjutant General, troops on State service may wear only decorations issued by the State. The decorations worn upon such service must not exceed six in number.

Semi-military decorations, offered for the purpose of promoting military zeal and endeavor, when sanctioned by the Adjutant General, may be worn on social occasions; with the permission of the commanding officer of an organization, they may be worn in ranks when the organization parades alone.

With the exception of decorations issued by the State, badges, medals or other decorations, not provided for in the foregoing paragraphs or especially authorized by the Adjutant General, must not be worn with uniform upon any occasion whatsoever.

Decorations are worn on the left breast of the blouse or coat, the bars to which they are attached forming a horizontal line, the outer end of which is from two to four inches (according to the height of the wearer), below the upper line of the shoulder.

A bronze medal with bar attached is given for the first year's qualification, to first and second class marksmen and to sharpshooters.

A bronze bar for qualification as a second class marksmen during each of the first four years of qualification.

A silver bar for qualification as a first class marksman during each of the first four years of qualification.

A gold bar for qualification as a sharpshooter during each of the first four years of qualification.

A silver keystone for the fifth year's qualification.

A gold medal for the ten year of successive yearly qualification.

INFANTRY FIRE AND RANGE PRACTICE.

THE source of victory is in superiority of fire; and the chief source of this is in concentration. The long range of the rifle should therefore be utilized to concentrate, on objectives successively chosen, the fire not alone of the troops immediately fronting them, but of considerable fractions of the firing line; and, to obtain resnlts commensurate with the ammunition expended, the fire must be directed and controlled.

The German Regulations says: "In action, the utilization of the rifle, as long as control of fire exists, belongs to the leaders. A rational employment of fire is one of the essential guarantees of success. The necessary conditions to obtain it are calmless, tactical judgment, skill in estimating distances, gift of observation, correct appreciation of the ground and knowledge of the ballistic properties of the weapon."

"*Classification of Duties*—The functions of those concerned in the firing may be classified as follows:

"To the commanders of the firing line belongs *the direction of fire;*

"To the commanders of subdivisions, *the control;* and

"To the men, *fire discipline.*"

"Direction of fire includes: (1) the determination of the moment for opening fire; (2) choice of objectives, and their allotment to the troops firing; (3) choice of the ground to be occupied by the men; (4) the designation of the elevations to be used; (5) the kind of fire to be used; (6) observation of the result obtained; (7) the number of rounds to be fired at each halt in advancing to the attack; and (8) replenishment of ammunition.

"Control of fire means enforcing these orders and seeing that the men take careful aim, with the designated elevation at the designated object.

"Fire discipline is, or should be, the unhesitating habit developed in the men by instruction and training, of commencing, relaxing or ceasing the fire, and concentrating it on the designated objects in obedience to orders. No firing should ever be permitted without orders, and it should cease as soon as the command is given."

In addition to being carefully trained in rifle firing, the soldier should be impressed of the importance of the following rules:

1. Never fire except when ordered, and then only the number of cartridges indicated.
2. Never fire after the command or signal "*cease firing.*"
3. Never fire except at the named objective.
4. Never fail to adjust the sight at the range named.
5. Always aim at *the feet of the enemy.*

The observance of these simple rules in action is a matter of the greatest difficulty. In the excitement of battle the men become so absorbed in the act of firing that they perform the motions automatically rather than intelligently, and seem to be actuated by a desire to shoot rapidly rather than with effect.

To completely maintain a subdivision of duties, for those concerned in firing, is possible only at some distance from the enemy, prior to the irregular mixing of units which sooner or later occurs. That control may not be speedily lost, men must be taught in peace practice to obey the rank, and not the person merely, so as to accustom them to following strange leaders when their own are lost. "Two things are necessary for this: (1) that the soldier should be taught the limit of efficacy for individual fire, its uselessness beyond that range, and the efficacy of a collective fire; and (2) discipline—the keynote of all success in war."

The generally received dimensions of the usual objectives met in war may be stated as follows:

"Height of man standing	5.5 feet
" " " running forward	5.33 feet
" " " kneeling	3.67 feet
" " " lying down in the open	1.5 feet
" " " " " under cover	1.17 feet
Height of horseman standing	8.0 feet
" " " riding rapidly	6.67 feet
Total width of man	1.75 feet
Width of the vulnerable part of man	1.33 feet
Width of a group of 2 men in close order	4.1 feet
Width of a group of 3 men in close order	6 45 feet
" " " " " 4 " " " "	8.8 feet
Width of a horse and rider	3.0 feet

In determining distances by sight the estimate is based upon the distinctness with which the object can be seen, upon its apparent height when its dimensions are known, and by a comparison of the extent of ground between it and the observer with some other known distance, which is either within view or so distinctly impressed upon the soldier's memory as to serve accurately as a unit of measure. These two different methods should be taught simultaneously.

For men of ordinary eyesight, and under ordinary conditions of air and light, the following general rules are practicable:

At 30 yards the white of a man's eyes is plainly seen, and the eyes themselves are seen up to 80 yards.

At 100 yards all parts of the body are seen distinctly, slight movements are perceptible, and the minute details of the uniform can be distinguished.

At 150 yards the buttons on the blouse can still be separately distinguished.

At 200 yards the outlines of the face are confused, and the rows of buttons look like stripes.

At 300 yards the buttons are no longer visible.

At 400 yards the face is a mere dot, but all movements of the legs and arms are still distinct.

At 600 yards details can no longer be distinguished, though the files of a squad, if the light is strong, can be counted.

At 800 yards the men in a squad cannot always be counted, nor their individual movements be distinguished.

At 1000 yards a line of men simply resembles a broad belt; the direction of their march can, however, be readily determined.

At 1200 yards infantry can be distinquished from cavalry.

At 2000 yards a mounted man appears as a mere speck or dot.

The method of estimating distances by sound is based upon the fact that the velocity of sound, in air of a temperature of 70° Fahr., is about 1130 feet per second.

"The secret of success in battle lies in superiority of fire, and this can be gained only by careful training of the individual soldier in the use of his rifle, and in that discipline which alone can enable fire to be properly directed and the expenditure of ammunition controlled. The absence of training, or its improper direction, will prepare the way for a waste of cartridges, resulting only in exhaustion of ammunition and consequent defeat." These are two separate trainings, but care in instruction for individual practice leads insensibly to both efficiency and discipline in collective fire.

For the amount of instruction received by their commands, and for the degree of proficiency which they manifest, regimental commanders are primarily responsible, and it is expected that they will exact from the troops under their command the highest degree of proficiency attainable. It is their duty to inaugurate and conduct the instruction of their officers in the general theoretical principles of the subject, and by frequeut supervision of the preliminary drills and exercises, and of the target practice of the companies, to assure themselves that the captains and their assistants are are thoroughly conversant with all the details of the course, that they conduct the instruction of their men with energy and judgment, and where any deviations were made from the prescribed methods of instructions, that they are only those best adapted to secure the most favorable results.

Company commanders should so conduct the instruction of their noncommissioned officers, both in the general theoretical principles of rifle and carbine firing, and in the different details of the course (particularly in the preliminary drills) that they may be enabled to render intelligent assistance in the instruction of the company.

The education of the men in rifle firing should be under the immediate supervision of the company commander, assisted by his lieutenants and noncommissioned officers. Progress in rifle and carbine firing depending not only upon the method of instruction, but to a great degree upon the capabilities of the instructors, it is essential that the company officers should themselves become proficient, not only in the theoretical but in the practical

INTERIOR OF HOSPITAL TRAIN,
IN CHARGE OF LIEUTENANT THOMAS B. THOMAS, FIRST INFANTRY.

details of the subject. They should participate in the preliminary drills and exercises and in the other parts of the course ; they should always attend target practice, firing with the men and endeavoring to attain a position in advance of the company in proficiency with the rifle, carbine and revolver.

If the preliminary drills and the higher principles of target firing are thoroughly taught, every soldier, unless he is subject to some physical defect, can by careful practice become so proficient in the use of his weapon as to make his rifle at moderate distances—probably up to about 600 yards—fairly effective against individual objects ; and a small proportion of the men will develop such an excellence as to extend these limits to 1000 or 1200 yards. Where a company consists of men who have reached this state of proficiency, their collective fire, if properly directed, would be effective against masses of men at all distances up to at least 1500 yards.

Instructions at the rifle range should confine themselves to the minimum amount of coaching, and that only in words ; the instructor should not set wind-gauge or elevation.

One Hundred Yards.—No use should be made of the gun-sling at this range ; it should be strapped tightly to the barrel, or only sufficiently loosened to permit the free passage of the hand between it and the stock. No rest for the rifle or carbine is allowed, or for any part of the body, except that the left elbow may be brought against the breast. Any position of the left hand (provided the little finger is in front of the trigger guard), is permitted. With these limitations the standing position which the soldier can take with the greatest ease and steadiness, should be adopted.

The drift of the bullet at this range being only a little over one inch, it will be better to aim slightly to the left of the vertical line through the centre of the bull's-eye than to make any change in the lateral position of the sight. At this range the wind causes only a slight deviation of the bullet, an allowance of one point on the wind-gauge of the rifle being sufficient to compensate for a wind acting at right angles to the plane of fire, with a velocity of about 18 miles an hour.

Two Hundred Yards.—The position prescribed for practice at 100 yards, with its variations and restrictions, should also be employed for the practice at this range.

With the rifle and service cartridge, if aim is taken with the half sight at the lower edge of the bull's-eye, the elevation must generally be raised above that marked on the sights for this range, in order that the centre of the bull's-eye may be struck.

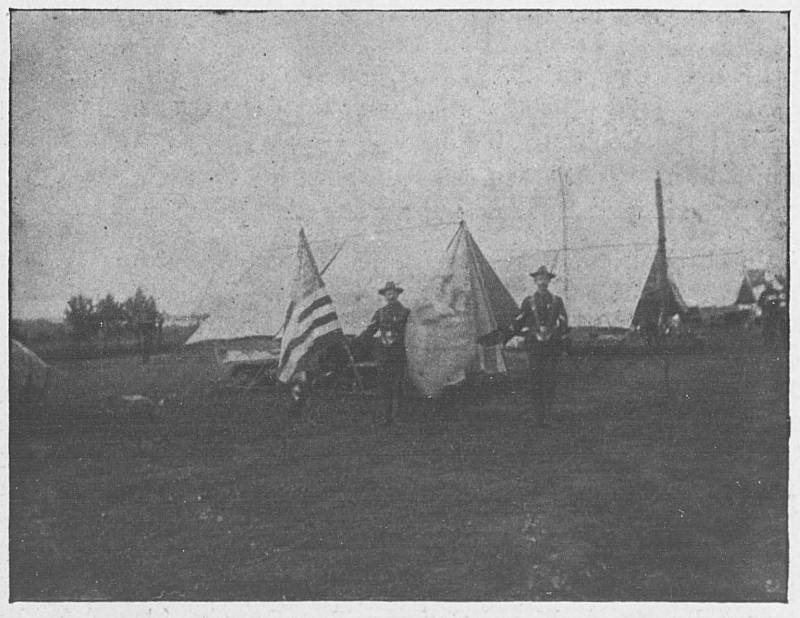
At this range one point of the wind-gauge of the respective arms compensates for a wind acting at right angles to the plane of fire, with a velocity of about 8 miles an hour for rifle firing, and about 10 miles an hour for carbine firing.

To change the horizontal position of the shot to the right or left a distance equal to the width of the bulls-eye, the wind-gauge should be moved in the corresponding direction about ¾ of a point for the rifle and a little less than ½ point for the carbine. To make a change equal to ¾ of the width of the target, the wind-gauge on the rifle should be moved 3 points, that on the carbine about two points.

In making changes in the elevation the soldier should be governed by the fact that at this range an increase of about 17 yards in the elevation of the rifle and 12 yards for the carbine will raise the shot on the target about 5 inches, or ½ the length of the bull's-eye.

Five and Six Hundred Yards.—The soldier practicing at these ranges must fire lying down. At 500 yards the firing should be from the prone position ; at 600 yards any position lying down, either prone or on the side or back, is permitted, except that no form of rest for the person or for the rifle, other than may be afforded by the body, is allowed. The gun-sling may be used in any manner in connection with the body, but with no extraneous objects, in steadying the rifle or absorbing the recoil. The shortness of the carbine barrel will generally, with that arm, make the prone position imperative.

(To be continued.)



STAND OF COLORS PRESENTED TO THIRD PENNA. VOL. AT HUNTSVILLE, ALA.

NEW ROSTER OF THE N. G. P.

FIRST BRIGADE.

Major A. Merritt Taylor, Assistant Adjutant General, vice Charles H. Townsend, resigned.

Major Thomas J. Dolan, Commissary of Subsistence, to Assistant Adjutant General.

SECOND BRIGADE.

Captain Marshall Phipps, Aid-de-Camp, to Captain Company I, Seventeenth regiment.

THIRD BRIGADE.

Major Robert S. Magee, Assistant Adjutant General, vice Milton A. Gherst, to Lieutenant Colonel Eleventh Regiment.

SECOND TROOP PHILADELPHIA CITY CAVALRY.

Captain Richard Tilghman. First Lieutenant Frank Earle Schermerhorn. Second Lieutenant William W. Ruley.

SECOND SHERIDAN TROOP.

Captain Thomas M. Fleck. First Lieutenant Harry P. Dowler. Second Lieutenant Alexander G. Appleby.

SECOND GOVERNOR'S TROOP.

Captain Charles P. Meck. First Lieutenant S. Frank Westen. Second Lieutenant Joseph J. Weaver.

BATTERY D.

First Lieutenant Clarence J. Carpenter. First Lieutenant Theodore Maris.

BATTERY F.

Captain Henry H. Quimby. First Lieutenant Joseph W. Thompson. First Lieutenant Howard S. Williams. Second Lieutenant Frank B. Hampton. Second Lieutenant George Schenk, Quartermaster.

SEVENTH REGIMENT INFANTRY.

Colonel Asher Miner. Lieutenant Colonel Charles E. Peck. Major William P. Clarke. Major William N. Reynolds, Jr. Captain Stewart L. Barnes, Company A. First Lieutenant Edwin Hartzell, Company A. Second Lieutenant Robert Kenworthy, Company A. First Lieutenant Lewis J. Fischer, Company B. Second Lieutenant John B. Beck. Captain William H. Heim, Company C. First Lieutenant Frederick H. Sparrenberger, Company C. Second Lieutenant George W. Arnold, Company C. Captain Andrew Lee, Company D. First Lieutenant Louis A. Sundmacher, Company D. Second Lieutenant Calvin Pardee, Jr., Company D. Captain Arthur W. Jackson, Company E. First Lieutenant John F. J. Callahan, Company E. Second Lieutenant John Coolbaugh, Company E. Captain James A. Dewey, Company F. First Lieutenant George Evans, Company F. Second Lieutenant Edwin Jones, Company F. Captain Charles L. Peck, Company G. First Lieutenant Charles F. Furey, Company G. Second Lieutenant John H. Gough, Company G. Captain Mason B. Hughes, Company H. First Lieutenant Wilber C. Mickey, Company H. Second Lieutenant Christian Conrad, Company H. Captain William G. Simpson, Company I. First Lieutenant George B. Rice, Company I. Second Lieutenant James D. Monie, Company I. Captain Norval W. Reynolds, Company K. First Lieutenant William M. Reynolds, Jr., Company K. Second Lieutenant Alvah R. Melhuish, Company K. Captain Samuel Hawke, Company L. First Lieutenant Frank W. Pneuman, Company L. Second Lieutenant Byron Byron M. Ward, Company L. Captain David R. Horne, Company M. First Lieutenant James Daly, Company M. Second Lieutenant Elwyn H. Bachman, Company M.

ELEVENTH REGIMENT INFANTRY.

Colonel Louis A. Watres. Lieutenant Colonel Milton A. Gherst. Major Alonzo H. Raber. Major B. Rush Field. Captain Harry M. Phillippi, Company A. First Lieutenant Harry J. Wendler, Company A. Second Lieutenant Adam J. O'Harra, Company A. Captain John M. Groff, Company B. First Lieutenant Quinton O. Reitzel, Company B. Second Lieutenant Harry E. Edgerley, Company B. Captain Clinton G. Heyd, Company C. First Lieutenant George M. Hays, Company C. Second Lieutenant Morris T. Riley, Company C. Captain Fremont Stokes, Company D. First Lieutenant Christopher F. Pross, Company D. Second Lieutenant Frank A. Branda, Company D. Captain Benjamin Rush Field, Company E. First Lieutenant Fred. R. Drake, Company E. Second Lieutenant Robert T. Horn, Company E. Captain Alonzo H. Raber, Company F. First Lieutenant George M. Bollinger, Company F. Second Lieutenant Edward T. Keyworth, Company F. Captain William A. Raub, Company G. First Lieutenant David W. Davies, Company G. Second Lieutenant Robert W. Cooper, Company G. Captain Maurice E. Finney, Company H. First Lieutenant Nicholas Tack, Company H. Second Lieutenant Harry C. Houtz, Company H. Captain Michael J. FitzGerald, Company I. First Lieutenant Charles R. Gates, Company I. Second Lieutenant Ed. R. Euston, Company I. Captain James O. Dimmick, Company K. First Lieutenant Edwin M. Gee, Company K. Second Lieutenant George R. Wirth, Jr., Company K. Captain Dan. C. Osborn, Company L. First Lieutenant Frank McMullen, Company L. Second Lieutenant Grant W. Lane, Company L. Captain James Archbald, Jr., Company M. First Lieutenant Clyde G. Allan, Company M. Second Lieutenant Frank H. Bowen, Company M.

SEVENTEENTH REGIMENT INFANTRY.

Colonel Albert J. Logan. Lieutenant Colonel Thomas J. Keenan, Jr. Major James B. R. Streator. Major Robert M. Ewing. Captain John H. Staley, Company A. First Lieutenant Cassius M. Hobaugh, Company A. Second Lieutenant William H. Hamilton, Company A. First Lieutenant Lewis D. Beall, Company B. Second Lieutenant George Denney, Company B. Captain Hugh A. Rogers, Company C. First Lieutenant Isaac L. Jones, Company C. Second Lieutenant James C. Kirk, Company C. Captain James E. McNary, Company D. First Lieutenant Thomas A. Taylor, Company D. Second Lieutenant Colbert A. MacClure, Company D. Captain Alexander J. Henderson, Company E. First Lieutenant Rudolph A. Schaffer, Company E. Second Leo Eugene Smith, Company E. Captain Robert M. Ewing, Company F. First Lieutenant John H. McMillin, Company F. Second Lieutenant Henry F. Hobson, Company F. Captain Alfred H. McClelland, Company G. First Lieutenant Everet P. Sleppy, Company G. Second Lieutenant William W. Shaw, Company G. Captain James A. Wible, Company H. First Lieutenant Charles G. Tibbens, Company H. Second Lieutenant Glenn Adams, Company H. Captain Thomas J. Keenan, Jr., Company I. First Lieutenant Harry L. McKain, Company I. Second Lieutenant Alfred C. Cratty, Company I. Captain James L. Deming, Company K. First Lieutenant Ira C. Harper, Company K. Second Lieutenant William A. Griscom, Company K. Captain William O'McNary, Company L. First Lieutenant Asa Packer Davis, Company L. Second Lieutenant Ernest E. Jones, Company L. Captain Samuel H. Du Shane, Company M. First Lieutenant Alexander Johnston, Company M. Second Lieutenant Charles A. Richey, Company M.

NINETEENTH REGIMENT INFANTRY.

Colonel Oliver C. Bosbyshell. Lieutenant Colonel Thomas J. Powers. Major Eugene J. Kensil. Major George W. Carvin. Captain George C.

Regulation Army
OFFICERS' BOOT
TWO QUALITIES—$12.00 AND $15.00
Benkert & Co.
1104 Chestnut Street Philadelphia

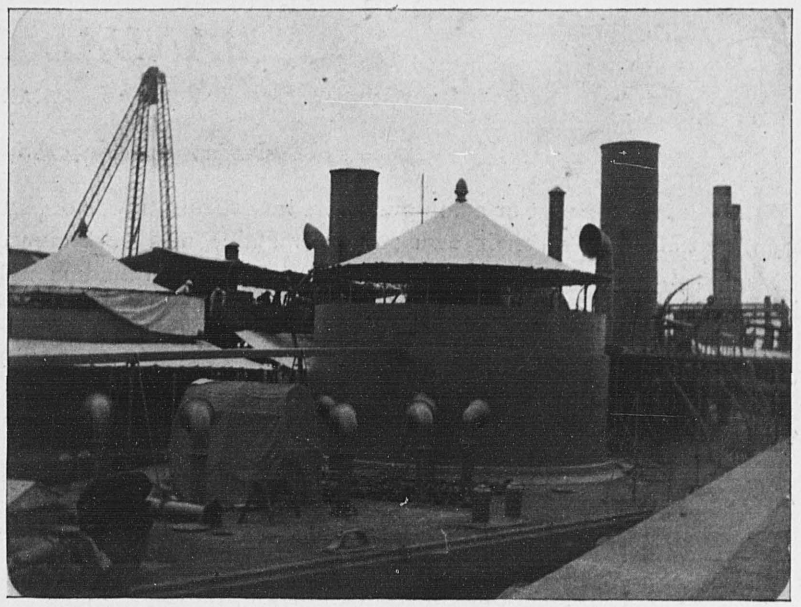
Miller, Company A. First Lieutenant John W. Au Rand, Company A. Second Lieutenant Edwin F. Frey, Company A. Captain George W. Garvin, Company B. First Lieutenant Leonard B. Milson, Company B. Second Lieutenant William D. Thornley, Company B. Captain William A. Ryan, Company C. First Lieutenant William Tretbar, Company C. Second Lieutenant Herbert W. Elvidge, Company C. Captain Thomas J. Powers, Company D. First Lieutenant William R. Knight, Jr., Company D. Second Lieutenant Robert McKinney, Company D. Captain Charles J. Russell, Company E. First Lieutenant Edward F. Berry, Company E. Second Lieutenant Albert D. Booz, Company E. Captain Harry L. Hamersly, Company F. First Lieutenant Edwin P. Everhart, Company F. Second Lieutenant Charles F. Bugless, Company F. Captain Richard A. Coock, Company G. First Lieutenant H. B. Amick, Company G. Second Lieutenant Theodore Wunderlick, Company G. Captain George W. Reynolds, Company H. First Lieutenant John J. Kemble, Company H. Second Lieutenant Henry Heilemann, Company H. Captain Henry Nuss, Jr., Company I. First Lieutenant Hutchinson B. McKnight, Company I. Second Lieutenant Alfred H. Pierson, Company I. Captain Bernard McCourt, Company K. First Lieutenant W. S. Walker, Company K. Second Lieutenant F. H. Enright, Company K. Captain Eugene J. Kensil, Company M. First Lieutenant Henry L. Brooks, Company M.

TWENTIETH REGIMENT INFANTRY.

Colonel George F. Leland. Major Frank H. Mullen. Major David S. B. Chew. Captain Ellsworth Kochersperger, Company A. First Lieutenant Joseph Dyson, Company A. Second Lieutenant Thomas H. Donahue, Company A. Captain James M. Maguire, Company B. First Lieutenant Alexander A. Weber, Company B. Second Lieutenant Edward F. Jackson, Company B. Captain Charles J. Hendler, Company C. First Lieutenant Albert L. McConnell, Company C. Second Lieutenant James F. Rodgers, Company C. Captain John L. Harding, Company D. First Lieutenant William S. Nevins, Company D. Second Lieutenant Omar M. Shuman, Company D. Captain Charles R. Guertler, Company E. First Lieutenant Nathan Marcus, Company E. Second Lieutenant Henry L. McEwen, Company E. Captain Harry J. Seibel, Jr., Company F. First Lieutenant Charles M. O'Connell, Company F. Second Lieutenant Harry M. Stanford, Company F. Captain Earnest Cunningham, Company G. First Lieutenant Robert W. Griffith, Company G. Second Lieutenant Charles W. Parmentier, Company G. Captain Joseph R. Baird, Company H. First Lieutenant Henry B. Lafferty, Company H. Second Lieutenant John A. McCullough, Company H. Captain Edward E. Packer, Company I. First Lieutenant R. P. Schellinger, Company I. Second Lieutenant Alfred H. Burton, Company I. Captain John S. McLaughlin, Company K. First Lieutenant Chas. A. Evans, Company K. Second Lieutenant Winfield S. Evans, Company K. Captain Frederick F. Turner, Company L. Second Lieutenant W. Knowles Evans, Company L. Captain Sharpless M. Paxson, Company M. First Lieutenant St. Julien Ogier, Company M. Second Lieutenant George R. Hoopes, Company M.

TWENTY-FIRST REGIMENT INFANTRY.

Colonel Edwin V. D. Selden. Lieutenant Colonel John M. Siegfried. Major David W. Simpson. Major Walter Irving Bates. Captain John B. Tonkin, Company A, First Lieutenant Guy L. McGutcheon, Company A. Second Lieutenant Charles S. Perry, Company A. Captain David W. Simpson, Company B. First Lieutenant David Blair, Company B. Second Lieutenant James H. Allison, Company B. Captain Walter Irving Bates, Company C. First Lieutenant George G. Derby, Company C. Second Lieutenant William Edgar Porter, Company C. Captain John M. Siegfried, Company D. First Lieutenant William P. Mitchell, Company D. Second Lieutenant Homer J. Muse, Company D. Captain Carl E. Cosolowski, Company E. First Lieutenant Joseph A. Riley, Company E. Second Lieutenant Charles E. Batchelder, Company E. Captain Harry A. Miller, Company F. First Lieutenant S. Royer Dibert, Company F. Second Lieutenant Charles A. Beswick, Company F. Captain James A. McKee, Company G. First Lieutenant James M. Maxwell, Company G. Second Lieutenant John C. Graham, Company G. Captain Charles C. Marshall, Company H. First Lieutenant John S. Leslie, Company H. Second Lieutenant Hugh O. Jones, Company H. Captain William W. Reed, Company I. First Lieutenant Morton D. Tinkey, Company I. Second Lieutenant Whitney Rosenzweig, Company I. Captain Charles J. S. Miller, Company K. First Lieutenant George J. Krepp, Company K. Second Lieutenant Chess Lamberton, Company K. Captain Harry M. Chaney, L. First Lieutenant Samuel H. Johnston, Company L. Second Lieutenant Thomas F. Bailey, Company L. Captain Amos Mullen, Company M. First Lieutenant James H. Harris, Company M. Second Lieutenant Wilbur C. Cassidy, Company M.



A NAVAL RESERVE BATTLESHIP.

REORGANIZATION OF THE NAVAL BATTALION.

A thorough reorganization of our State Naval force is likely to take place in a very short time. Lieutenant John S. Muckle has presented a plan to the Federal Government which in all probability will be favorably acted upon.

The divisions are to constitute a Ship's company, each being in charge of one officer, the executive officer and navigator will be dispensed with, under this rule, and a line officer detailed for departmental duty. The Pittsburg division will, in all probability, be mustered out, and the entire battalion quartered on the U. S. S. St. Louis.

TO OUR PATRONS.

THE number 8 issue is intended for the month of September, and our special Peace Jubilee number for October. The unavoidable suspension of "Our State Army and Navy" during the war has made this change necessary. The first volume will therefore run out in January 1899, in place of November 1898.

IT is stated that official orders have been issued from Army Headquarters ordering all officers and enlisted men to wear uniforms during the period of waiting orders and furlough.

ARRANGEMENTS have been made to equip all of our State troops for the great Military parade during the Peace Jubilee.

J. W. MANSFIELD

MANUFACTURER OF

Military Knit Riding Trousers

SEND FOR CIRCULAR LETTER AND . . . MEASURE BLANK

1421 Ridge Avenue
Philadelphia

MANUAL OF GUARD DUTY.

UNITED STATES ARMY.

(Continued from last number.)

When details for post or camp guard are made from troops or batteries that also furnish their own stable or stable and park guards, a credit will be allowed each for the number of enlisted men furnished for its stable or stable and park guard, as though they had been detailed for post guards.

Special details for herd guard will be credited on the roster for fatigue duty.

The stable sergeant and stable orderly are detailed on special duty, for such periods as may be directed by troop commanders, and while on this special duty are not subject to detail for guard.

One supernumerary from each company will usually be detailed; if more are required, the commanding officer fixes the number.

First sergeants, in detailing supernumeraries, will take the men next on the roster after making the detail for privates of the guard.

Should the adjutant be notified that men are required to fill vacancies in the guard, he will cause the proper number of supernumeraries to report to the commander of the guard, taking them from those companies that have furnished less than their proportionate part of the guard. A supernumerary who thus goes on guard will be credited on the company roster with a tour of guard duty the same as though he had been detailed as a private of the guard.

At first sergeants' call, all the first sergeants repair to headquarters and take from the bulletin board all the data necessary for them to make the required details from their respective companies; they make their details accordingly from their rosters.

When practicable, each first sergeant publishes at retreat all the details made from the company. He will also post them on the company bulletin board

The method of keeping the first sergeants' roster is shown in the model duty roster issued by the Adjutant General of the Army.

The sergeant major, under the supervision of the adjutant, will keep a record from which he will each day determine the number of privates required for guard duty from each company. This record is kept in a blank book ruled conveniently for the purpose.

If non-commissioned officers and musicians are not detailed by name from rosters kept by the sergeant major, he determines, in a similar manner, the number of each to be detailed. He will post on a bulletin board in his office all data required by the first sergeants in making details from their respective companies, giving the names of those detailed by name.

The sergeant major determines the number of privates to be detailed from each company by the following rules: Take the number of privates for duty in each company from its morning report for the day next preceding that on which the tour of duty is to commence, deducting details for detached service of over twenty-four hours, made after the morning report has been received; the total of these gives the total number of privates available. Then: The total strength is to the strength of a company as the total detail is to the detail from the company. Multiply the total detail by the strength of the company, and divide the result by total strength; carry out to two places of decimals, disregarding all smaller fractions. This rule is applied for each company.

The whole numbers in the results thus obtained are added together, and if the total is less than the total detail required, add one to the whole number in the result that has the largest fraction, and so on for each company till the required total is obtained.

There will thus be a difference between the exact proportion and the number detailed from each company; this difference is carried forward to the next day's proportion, to be added if a company has furnished less, or to be subtracted if a company has furnished more than its exact proportion.

THE COMMANDING OFFICER.

The commanding officer will exact a faithful, correct and vigilant performance of guard duty in all its details, giving his orders to the officer of the day, or causing them to be communicated to him with the least practicable delay. He prescribed the strength of the guard, the positions of the color line and guard tents, the number and location of the posts of sentinels, the necessary regulations for police and fatigue duties, the uniform and equipment of the guard, and the hours of sounding calls; causes a list of calls to be furnished the commander of the guard; designates the hour for challenging to begin, otherwise challenging begins at retreat; causes the guard to be relieved every twenty-four hours when in camp or garrison; gives the special instructions which the duties of the guard and sentinels require; causes the necessary copies of orders for sentinels to be furnished the commander of the guard; receives the reports of the officers of the day immediately after guard mounting, at his office or at some place previously designated; carefully examines the guard report and the remarks made thereon (questioning the old officer of the day, if necessary, concerning his tour of duty); relieves the old officer of the day, and give the new officer of the day such instructions as may be necessary.

In the case of a small command, requiring modifications of the form prescribed for guard mounting, he gives the necessary instructions as to how the old guard shall be relieved and a new one put in his place.

He will see that sentinels are so distributed as to require the least possible number of men for guard consistent with the object for which the guard is maintained.

The number and posts of sentinels about a regularly formed camp are as follows: One over the arms of the guard; one at the commanding officers tent; and as many on the front, rear, and flanks as may be necessary

No sentinel will be posted so distant as not to be heard by the guard either directly or through other sentinels.

When necessary, *detached posts* may be established outside the chain of sentinels. These posts are under the orders of the commander of the camp guard, and are visited by his patrols.

If necessary or expedient, the commanding officer may require that no person shall pass a sentinel's post unless passed by an officer or non-commissioned officer of the guard; he should also prescribe how and where soldiers and others shall enter or leave the post or camp.

He will determine whether the countersign shall be used or not, and if he requires it use for purposes of instruction, may authorize sentinels to pass persons who have not the countersign after they have been duly recognized.

OFFICER OF THE DAY.

The officer of the day is responsible for the proper performance of duty by the guard with which he marches on and for the enforcement of all police regulations, and is charged with the execution of all orders of the commanding officer relating to the safety and good order of the post or camp.

His actual tour of duty begins when he receives the report of the adjutant at guard mounting, and ceases when he has been relieved by the commanding officer.

In the absence of special instructions from the commanding officer, the officer of the day will inspect the guard and sentinels during the day and night at such times as he may deem necessary.

He will prescribe patrols and visits of inspection to be made by officers and non commissioned officers of the guard.

He will see that the commander of the guard is furnished with the parole and countersign before retreat, and will inform him of the presence in the post or camp of any person entitled to compliment.

In case of an alarm of any kind, the officer of the day will at once take such steps as may be necessary to insure the safety of public property and preserve order in the command, disposing his guard so as best to accomplish this result.

The officer of the day, in the performance of his duties as such, is subject to the orders of the commanding officer only, except that in case of an alarm of any kind, and at a time of great danger, the senior line officer present is competent to give necessary orders to the officer of the day for the employment of the portion of his guard not already occupied with duties prescribed in this manual and the standing orders of the post or camp.

At the inspections and musters prescribed in Army Regulations, the officer of the day will be present at the post of the guard, but all commands to the guard will be given by the commander of the guard.

The new officer of the day must be present at guard mounting ; the old officer of the day also, if so directed by the commanding officer ; after guard has passed in review, or marched to its post, they proceed to the guardhouse, and the old officer of the day gives the new officer of the day the old or standing orders, and each, placing himself at a convenient distance from and facing his guard, receives the salute.

Both officers of the day together verify the number of prisoners and inspect the guardhouse and premises.

To verify the number of prisoners at the guardhouse, the officers of the day take post in front of and facing the old guard. The *new* officer of the day, from the list of prisoners on the report of the commander of the guard, calls the names of the prisoners. Each prisoner, as his name is called, answers "*Here,*" steps two paces to the front and halts. If any prisoners are out at work, the officers of the duty verify their number as is most convenient.

All persons under guard, without written charges will be released by the old officer of the day immediately after verifying the number of prisoners, unless specific orders to the contrary have been given in each case by the commanding officer. He will at the same time release all prisoners whose sentences expire on that day.

If there be no officer of the guard, the new officer of the day will receipt to the old officer of the day for the articles under charge of the guard.

The old officer of the day enters on the report of the commander of the guard such remarks concerning his tour of duty as may be necessary, and signs his name thereto as officer of the day ; if he enters no remarks, he signs his name as officer of the day on the face of the report.

The officers of the day then report to the commanding officer.

On presenting themselves, both salute with the right hand, remaining covered. The old officer of the day, standing on the right of the new, then says : "*Sir, I report as old officer of the day.*" and presents the guard report. As soon as the commanding officer notifies the old officer of the day that he is relieved, the new officer of the day says, "*Sir, I report as new officer of the day*, and then receives his instructions.

COMMANDER OF THE GUARD.

The senior officer or non-commissioned officer of the guard is commander of the guard.

The commander of the guard is responsible for the instruction and discipline of the guard. He will see that all its members are correctly instructed in their orders and duties, and that they understand and properly perform them.

He receives and obeys the orders of the commanding officer and the officer of the day and reports to the latter without delay all orders relating to the guard not given or transmitted by him ; he transmits to his successor all material instructions and information relating to his duties.

He is responsible for the general safety of the camp as soon as the old guard marches off from the guardhouse. In case of any emergency occurring while both guards are at the guardhouse, the senior commander of the two guards will be responsible that proper action is taken.

Officers of the guard will remain constantly with their guards, except while visiting sentinels or necessarily engaged elsewhere in the performance of their duty. The commanding officer will allow a reasonable time for getting meals.

A commander of a guard leaving his post for any purpose will mention his destination and the probable duration of his absence to the next in command.

Except in emergencies, the commander of the guard may divide the night with the next in command, but retains his responsibility ; the one whose watch it is must be constantly on the alert.

When any alarm is raised in a camp or garrison, the guard will be formed immediately. If the case be serious, the proper call will be sounded, and the commander of the guard will cause the commanding officer and the officer of the day to be at once notified. If a sentinel calls : "*The Guard,*" the commander of the guard will at once send a patrol to such sentinels' post. If the danger be great, in which case the sentinel will discharge his piece, the patrol will be as strong as possible.

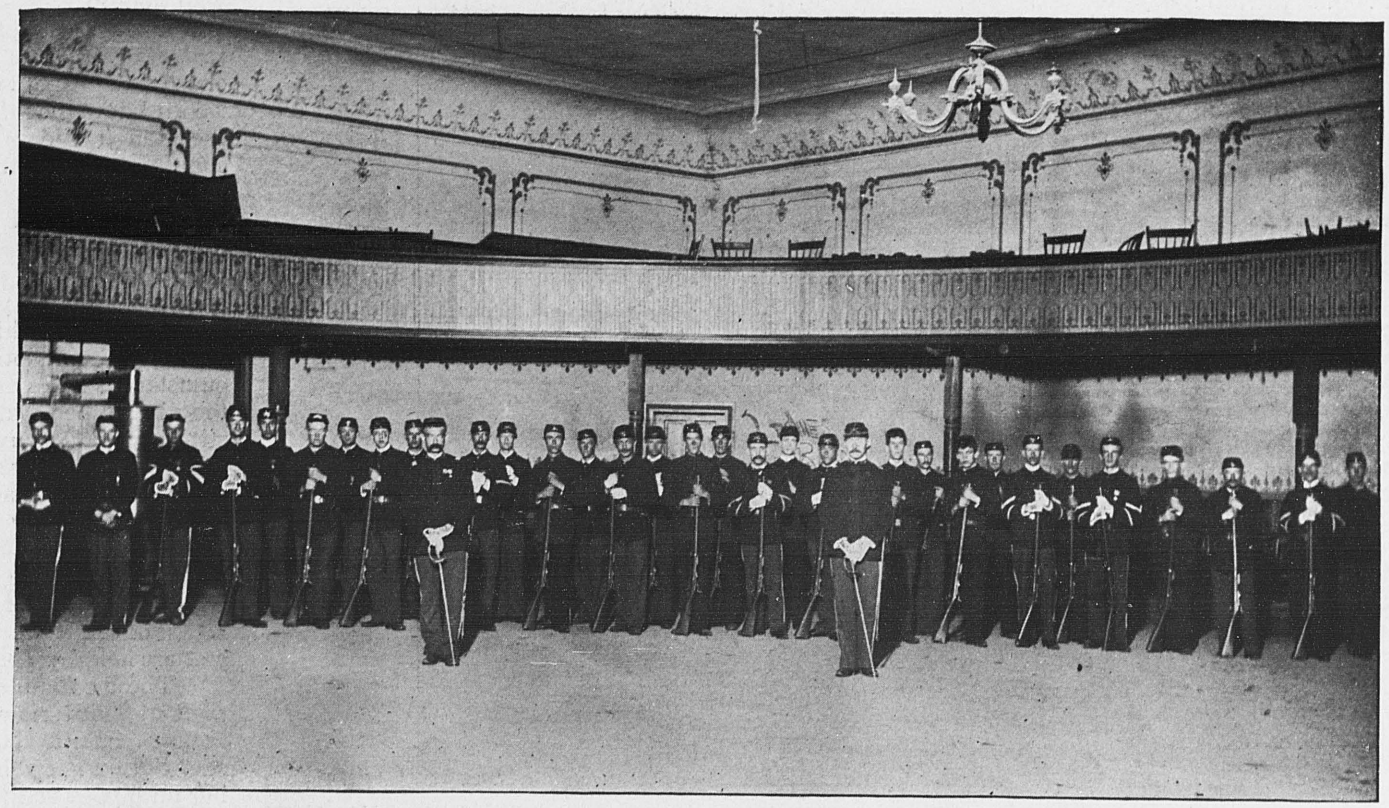
When practicable, there should always be an officer or non-commissioned officer and at least two privates of the guard at the guardhouse, in addition to the sentinels there on post.

The commander of the guard will see that the guard is formed promptly, and under arms, when turned out for any purpose whatever.

Between reveille and retreat, when the guard has been turned out for any person entitled thereto, the commander of the guard, if an officer, will receive the report of the sergeant of the guard, returning the salute of the latter with the right hand.

He will then draw his sword, and place himself two paces in front of the center. When the person for whom the guard has been turned out approaches, the commander of the guard faces his guard, commands : 1. *Carry.* 2. *Arms ;* 3. *Present,* 4. *Arms ;* faces to the front and salutes. When his salute is acknowledged, he resumes the carry, faces about, commands : 1. *Carry,* 2. *Arms ;* 3. *Order,* 4. *Arms ;* and faces to the front.

(To be continued.)



SOME OF OUR GALLANT "FOURTH," COMPANY F, IN THEIR HEADQUARTERS.

COLOR PRESENTATION TO THE THIRD PENNA. VOL. INFANTRY.

On Monday, August 30, a Committee of the Reserve Association, 3d Regt. N. G. P. (Co. C, 20th Infty), accompanied by General B. F. Fisher, as speech director, visited the camp of the 3d Penna. Vol. Infantry, at Huntsville, Ala., and presented them with a stand of colors and medical supplies, etc. The regiment was found to be in excellent condition and much appreciated the visit of their Philadelphia friends.

SPEECH BY GEN'L B. F. FISHER.

Col. Ralston and Men of Pennsylvania:

I have been deputed by Capt. Hendler, formerly of the Third Regiment, Chairman of the Committee, appointed by the Reserve Association of the Third Regiment, to aid in the performance of the special duties that have brought us to your camp, and to extend to you the cordial greetings of your friends at home.

Thirty-seven years ago, within a few days of the present hour, I had the pleasure of standing in line with twelve or fourteen thousand Pennsylvania soldiers upon the Heights, above Washington, when that great War Governor and eloquent and patriotic American citizen Andrew G. Curtin presented to the regiments of the Pennsylvania Reserve Corps the colors —National and State—which upon many battle-fields subsequently were ever found in the fire-front of the line, inspiring that body of Pennsylvania soldiers to the highest deeds of heroism.

No scene commanded a grander presence. There stood the immortal Lincoln with his cabinet, the General-in-command of the United States armies, the representatives of foreign nations, the dignitaries of the Senate, Congress, and Supreme Court, and thousands of the citizens of the State of Pennsylvania. All wishing godspeed to that gallant corps of Pennsylvania troops.

No body of soldiers won greater renown. In recognition of their efficiency and of the great loyal State from which they came, they were accorded the place of honor, the right of the line of the great army of the Potomac—and at Drainsville won the first battle of that army—and at Mechanicsville upon the Chickahoming met and stemmed the tide of the onset of the enemy in the terrible struggle of the seven-days fight. In fact the history of the Pennsylvania Reserve Corps covers much of the history of the great army of the Potomac.

CAPTAIN GEORGE DYSON,
FOURTH PENNSYLVANIA VOL. INFANTRY.

Called into existence by a wise forethought, upon the part of that War Governor, they were enabled to be thrown into Washington fully equipped, to defend the Capitol of the Nation and uphold the arms of that great hearted, wise and noblest of men Abraham Lincoln at a most critical time immediately upon the defeat of the army at Bull Run. The wisdom and forethought shown by the organization of that renowned corps—as well as the knowledge of the fact, that April 1860 found the people of the loyal North quietly and peacefully pursuing their various avocations in life, and wholly unprepared for war led at the close of the war to the organization of the National Guard of Pennsylvania, that in the future our people should not be found unprepared to meet any emergency that might arise. Of that efficient body of men you were past. The State has ever taken great pride in its National Guard. Its training and discipline in a few years made it hardly less efficient for actual service than the regular army, while the composition of its lives was much beyond in intelligence. The best of our youth were to be found in its ranks. It is hard to conceive of a more sturdy and intelligent representation of all that goes to make up the highest and best character of manhood in the world. Devoted to the State—obedient to law and order, it has been a most efficient auxilliary to the police power of the State.

But it remained for the call by the President for troops to protect the honor of the nation, and to battle for the right against a foreign foe, that called into existence the high order of patriotism which animated the members of the National Guard. Within a few hours after the call for troops the National Gard of Pennsylvania was upon its way in answer to that call—fully equipped and disciplined for service. Alive to the motto of your regiment, and the motto of the Reserve Association of the regiment—"Vestigia nulla retrorsum"—the National Guard took no backward step. True to its duty to the State and the National Government, it with one heart and with one mind volunteered into the service of the United States. Though the first to answer the call they came a body of trained soldiers eager to be led against the enemy. Like old campaigners with but a few exceptions, you have accepted your surroundings as soldiers should without a murmur—save to grumble and growl that you have not been moved against the enemy. You have envied the honors won by your brethren of the 10th at Manilla and of the 16th at Porto Rico. But you need not fear—your honor is deeply written in the hearts of the American people. Your earnest will to do if occassion had arisen is accepted for the deed and reflects as brightly your patriotism as did the charge at Manilla reflect that of the 10th. All the Nation honors each and every one who went forth at the call of country. While it did not fall to you to scale the Heights of San Juan or charge the Spaniards at El Caney, we all know that the heroic deeds of the Rough Riders would have been equally as gallantly duplicated by any regiment of our National Guard if opportunity had offered.

In high appreciation of your patriotism, your soldierly character and devotion to your country your comrades of the third regiment—who with equal patriotism would, if circumstances had permitted, been only too glad to be with you, and who constituted the Reserve Association organized to preserve at home the regimental organization, have, under the zeal and energy of that National soldier Captain Hendler, provided the handsomest regimental colors that artistic skill could produce in recognition of the love and esteem in which you are held by your friends at home.

These comrades and members of the Old Third, now Company C of the 20th regiment, will by the Reserve Association keep the vertal fires burning unto your return—unless forewith under the questions and complications that may arise during the peace negotiations another call for troops will become necessary — in which case they join you in the field.

But thanks be to God the war can be regarded as virtually over, and the nation has emerged with new honor and new prestige. The victories of our arms by sea and by land are the marvels of the age. Strong and powerful as we knew ourselves to be—it remained for this war to bring home to all the nations of the world our unlimited resources and capabilities—as well as the enlightened and unselfish caracter of our people and government. While we do not fear the strong, the American heart ever goes out in sympathy for the weak and down-trodden. The nation was animated by but one thought, and that was to strike for humanity—not for gain,—and not emerged from that unselfish effect, to which it was unquestionable impelled by the decrees of an All-Will-Providence to break the tyrannied rule of a nation stupid in superstition, vain glory, greed and avarice, not only with honor to its arms and power, but also with the knowledge that the liberty and foreign rule in America is the admiration of all the peoples of the world. The autocrats alone, who dominate their subjects, looked upon our success with sullen envy, and with solicitude at the opening of the door to the advancement of a knowledge of American freedom and prosperity under American rule.

The flag of our country is planted in the four corners of the globe. Its prestige will remain, and its presence will influence and inspire all nations to a power, more honest, just and equitable rule of government until the rights of all men shall be equally recognized and protected. "Vestigia nulla retrorsum"—your motto—must and will influence and rule the action of

the administration and our Peace Commissioners. The rights of humanity demands civilization and christianity, each demands that we take no backward step.

I now take pleasure in the name and upon behalf of Capt. Hendler and the Committee of the Reserve Association of the Third Regiment to present to you and through you to your regiment these beautiful colors—the national colors and the flag of the volunteer infantry of the United States. None such I am informed are born by any other organization from our State. There are the handy work of your friends—whose hearts have followed your footstep ever since you left Pennsylvania. In trusting them into your hands we know that while a man of this regiment lives they will never be trailed in the dust. The flag of the regiment has almost entity. It embodies within its folds the honor, power and authority of the government. If inspiration were needed, their flags, if you shall be called upon in defense of humanity or to preserve the honor of the nation or to enforce the rule of its properly constituted authorities, will yield you the inspiration.

Be ever mindful that you are American citizens and that the most glorious heritage of that citizenship are the liberties of our people, in the preservation, of which, we not only perpetuate the blessings and prosperity of our own nation but shall bring light, greater freedom and blessings to all the world.

LETTER OF ACCEPTANCE FROM COLONEL RALSTON.

Captain Charles J. Hendler, Chairman of Committee on Presentation of Colors and Medical Supplies, Reserve Association, Third Regiment Infantry, N. G. P.

On behalf of the officers and men of this regiment I have the honor to thank the members of your Association through you and your Committee, for the magnificent stand of colors presented to this command to-day, as well as for the much needed medical supplies and luxuries for the sick of the regiment that were received at the same time. It is a very great gratification to feel, while absent in the field, that our former comrades of the National Guard of Pennsylvania keep us in kind remembrance.

The gift of the colors was particularly timely as the regiment has been without the regimental colors, and the national colors carried from date of mustering in until the present time, are becoming frayed and torn by constant use.

Your committee has been able to judge during your presence in camp of the comfort and pleasure that the supplies for the sick in the regiment, have afforded, and it is needless to enlarge upon this.

With renewed thanks and the request that a greeting be conveyed by you to our old comrades at home, I have the honor to be

Very respectfully,
Your obedient servant,
ROBERT RALSTON,
Colonel.

RETIRED OFFICERS.

The following named officers having made applications and being entitled thereto, are placed on "The Roll of Retired Officers."

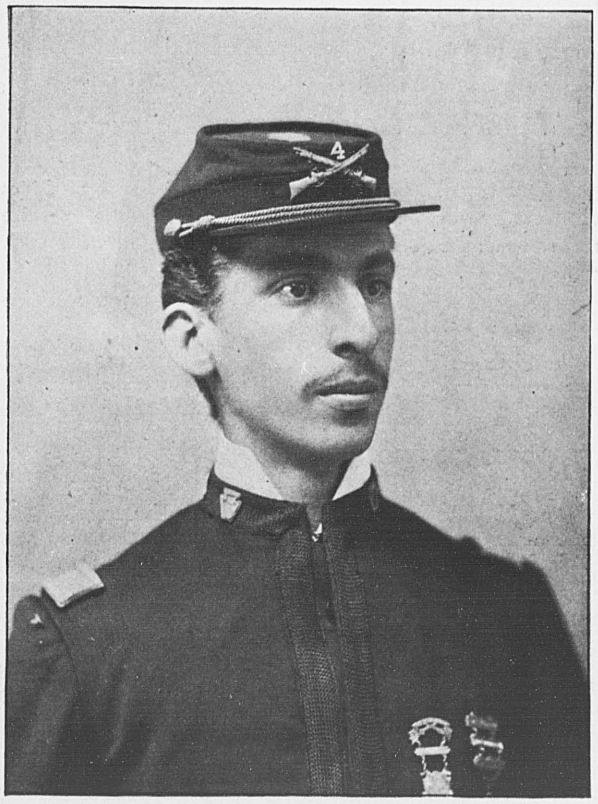
Captain Samuel P. Holmes. He enlisted as private, Company D, State Fencibles, Battalion Infantry, July 13, 1881; corporal, July, 1883; sergeant, August, 1885; second lieutenant, December 20, 1886; first lieutenant, July 8, 1889; captain, June 26, 1893; commission expired June 26, 1898.

Major William G. Fulton. He was private, Company D, thirteenth regiment infantry, March 19, 1888; assistant surgeon, thirteenth regiment infantry, March 19, 1888; reappointed assistant surgeon, October 8, 1888; appointed surgeon, June 20, 1892; reappointed surgeon, October 7, 1893; and June 28, 1895; resigned April 1, 1898.

Colonel Joseph R. C. Ward. He enlisted as Musician, Company I, 106th Pennsylvania Volunteers, August 24, 1861; mustered out as Corporal, September 10, 1864; served fifteen days as paymasters steward, United States Navy, September, 1864; private Company C, Gray Reserves, April 10, 1865; second lieutenant Company K, seventh regiment, N. G. P., September 29, 1869; appointed adjutant eighth regiment, N. G. P., May 25, 1870; elected colonel thirteenth regiment, N. G. P., July 19, 1871, resigned September 10, 1873; appointed major and assistant adjutant general third brigade, first division, N. G. P., September 13, 1873, resigned May 14, 1874; captain Company C, twentieth regiment, N. G. P., July 26, 1877, discharged September 21, 1877.

First Lieutenant Charles W. Marshall. He was private, Keystone Battery, now Battery A, May 18, 1870, corporal, April 16, 1873; sergeant, November 20, 1877; first sergeant, November, 1880; second lieutenant, October 17, 1882; first lieutenant, June 20, 1887; reelected first lieutenant July 11, 1892; honorably discharged January 4, 1898.

FIRST LIEUTENANT JOHN H. BISHOP,
FOURTH PENNSYLVANIA VOL. INFANTRY.



SECOND LIEUTENANT GEORGE R. KALBACH,
FOURTH PENNSYLVANIA VOL. INFANTRY.

Fig. 11.

Fig. 12.

Fig. 13.

*MANUAL OF PHYSICAL DRILL.**

BY FIRST LIEUTENANT EDMUND L. BUTTS, FIFTH INFANTRY, U. S. A.

(Copyrighted 1897, by D. Appleton & Co., New York.)

Second, EXERCISE.—At command *exercise*, carry left foot about twenty-four inches to the front and pointing to the front, both feet flat on ground; at same time bend trunk forward, and bring rifle down to left toe, Fig 11.

2. Replace left foot by right, swing rifle overhead, arms remaining straight, and take position 2 in second exercise.

3. Advance right foot, bend trunk forward, swing rifle down to right toe, arms remaining straight.

4. Replace right foot by the left, and take position 2.

5. Drop rifle to shoulders behind neck.

6. Extend upward.

7. Drop to chest.

8. Come to *ready*.

Take exercise four times.

Third, EXERCISE.—At command *exercise*, carry left foot about fifteen inches to the rear, turn body to left rear on hips, rising well upon right toe, left foot flat on ground, and swing rifle to to horizontal position overhead, back hollowed, wrists bend well back, eyes on rifle. Fig. 12.

2. Swing rifle down across body to the front to horizontal position overhead, at same time carry left foot about fifteen inches in front of right, and now, facing to the front and rising well upon right toe, take position similar to that of first movement, Fig. 13.

3. Swing rifle down across body and and overhead to rear, rising well on left toe, Fig. 14.

4. Swing rifle down and overhead and carry right foot about fifteen inches to the front, rising well on left toe, Fig. 15.

Repeat the above four movements to include sixteen count. At command *halt*, come to *ready*.

It will be seen that this exercise is similar to the third exercise. The body is turned to rear and front, instead of to left and right, and a step is taken to the front each time the rifle is swung to the front.

In executing these exercises one after the other, the third exercise ends at the sixteenth count, Fig. 15, and the fourth exercise commences by making the lunge from this position.

Fourth, EXERCISE.—At command *exercise*, lunge well out to left and extend rifle to the left at height of chin in a horizontal position, barrel up, left arm extended, eyes on muzzle, Fig. 16.

2. Resume *ready*.

* Through the courtesy of Messrs. D. Appleton & Company of New York we are enabled to present to our readers the illustrations as well as the exercises on this page. The preceding and following cuts can be seen by examination of a copy of the book, obtainable at any book store.

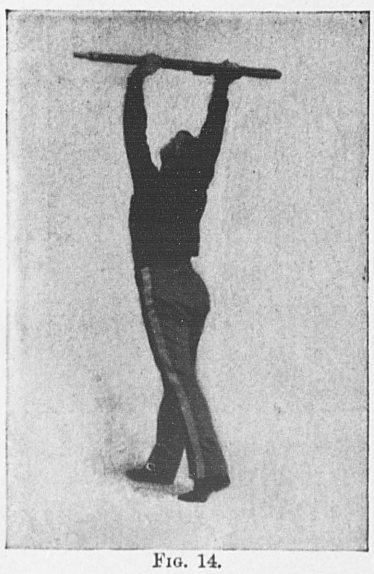


Fig. 14.

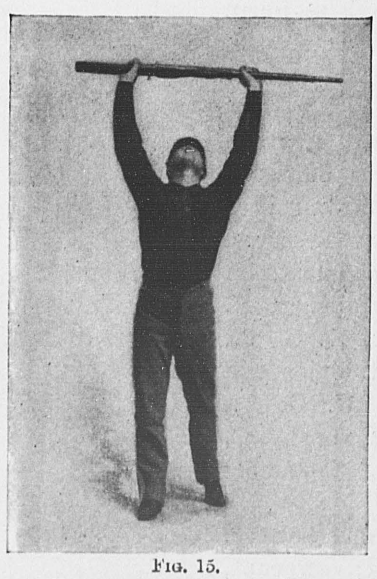


Fig. 15.

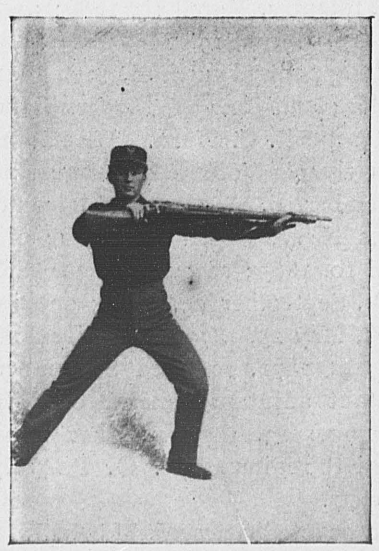


Fig. 16.

RECENT ORDERS N. G. P.

THE following regulations pertaining to the undress coat and collar insignia of commissioned officers of the National Guard of Pennsylvania are published for the information of all concerned. Any requirements of previous general orders inconsistent therewith are hereby revoked.

UNDRESS COAT FOR ALL COMMISSIONED OFFICERS.

A single-breasted sack coat of dark blue cloth or serge with standing collar fastened with hook and eye; coat to close with a flap containing eight concealed black buttons and button holes; the skirt to extend from one-third to two-thirds the distance from the hip point to the bend of the knee, according to height of wearer; cut to fit the figure easily; a vertical opening at each side of hip according to pattern; shoulder straps and collar insignia to be worn. The coat to be trimmed with lustrous black mohair flat braids as follows: Edged all around the bottom, the front edges, the collar, and for six inches upward from the bottom along both side openings to the skirt, with braid one and one-fourth inches wide. This coat will be worn when full dress is not required. During the warm season commanders may authorize this coat made of white duck or flannel, to be worn with white braid, but without shoulder straps or collar insignia.

On undress duty a plain leather or woven belt will be worn under the undress coat, the sword hook emerging through the opening of the coat on the left side. For field service, or when the pistol is carried, the belt will be worn outside the undress coat when so directed by the commanding officer. The insignia of the corps, department, or the number of the regiment will be worn on each side of the collar as at present, and are as follows:

There shall be worn by all commissioned officers a gold keystone on each side of the collar placed one-half inch from the opening, to be three-fourths of an inch in height and of proportionate width. Other devices to be placed one-half inch from the keystone.

For the Adjutant General and Assistant Adjutant Generals—A silver metal shield.

For the Inspector General, Division Inspector, and Brigade Inspectors—A gold metal sword and fasces crossed and wreathed.

For the Judge Advocate General, Judge Advocate of the Division and Judge Advocate of the Brigade—A silver sword and pen crossed and wreathed.

For the Quartermaster General, Assistant Quartermaster General, Division Quartermaster, Brigade Quartermaster and Quartermasters of Troops of Cavalry and Batteries of Artillery—A sword and key, crossed on a wheel, surmounted by a spread eagle, eagle looking to the front, to be made of gold or gilt metal, platinum and enamel.

For the Commissary General, Assistant Commissary General, Commissary of Subsistence of the Division and Brigade Commissary—A silver crescent, one-half inch between cusps, cusps to the rear.

For the Surgeon General, Surgeon-in-Chief, Brigade Surgeons, Surgeons and Assistant Surgeons of Regiments of Infantry, Troops of Cavalry and Batteries of Artillery—A modification of the cross of the Knights of St. John in gold, the centre to be plain, and the cross without border, one axis of the cross to be perpendicular to the edge of the coat collar.

For the General Inspector of Rifle Practice and the Inspector of Rifle Practice of the Division—A three-fourth inch square silver metal target with bull's-eye and two rings enameled in black.

For the Chief of Artillery—Two gold cannons crossed.

For the Ordnance Officer of the Division and Brigade—A silver shell and flame.

For the leader of Brigade Band—A silver metal lyre.

For Officers of Infantry—Crossed gold Rifles, barrels uppermost; the number of the regiment in gold in the upper angle; and for line officers, the letter of the company in gold in the lower angle.

For Officers of Cavalry—Crossed gold sabres, edge of blade uppermost, with the initial letter of organization in gold in upper angle.

Adjutants, Quartermasters and Inspectors of Rifle Practice of regiments are extra first lieutenants, not departmental officers, and wear the regimental insignia together with keystone. Battalion Adjutants will be detailed from the line.

With the exceptions noted, all the above to be embroidered in bullion, to be three-quarters of an inch in height and of proportionate width.

Where two or more insignia are used on the collar, they will be placed one-half an inch apart; thus in the case of surgeons the keystone is placed one-half inch from the opening of the collar, the organization insignia one-half inch from the keystone, and the medical insignia one-half inch from the organization insignia.

When officers are serving in the field, the coat as above described will be worn except that the braid trimmings may be omitted.

Officers who have in their possession serviceable undress coats of the present pattern and with the present insignias will be permitted to wear them to and including January 1st, 1899, but not thereafter.

The following assignments are made correcting errors in General Orders No. 25, c s.:

Second Sheridan Troop, Tyrone, Blair county, mustered July 2, Captain Thomas M. Fleck, to Second Brigade.

Company G, Allegheny, mustered July 22, Captain Alfred H. McClelland, to Seventeenth Regiment Infantry, Second Brigade.

Commissions have been issued for the following named officers of Pennsylvania Volunteers since those published in General Orders No. 23, A. G. O. C. S.:

First Lieutenant, William B. Johnston, Company G, First Regiment.
Second Lieutenant, Townsend Whelen, Company G, First Regiment.
Captain, George B. Zane, Jr., Company I, First Regiment.
Chaplain, John E. Reber, Third Regiment.
Second Lieutenant, Paul Denckla Mills, Company K, Fourth Regiment.
Captain, Ralph E. Gambell, Company K, Fifth Regiment.
First Lieutenant, Edson J. Catlin, Company K, Fifth Regiment.
Second Lieutenant, Herbert E. Burchfield, Company K, Fifth Regiment.
Captain, Francis Marion Bean, Light Battery C.
First Lieutenant, William Franklin Fulmer, Light Battery C.
Second Lieutenant, Bromley Wharton, Light Battery C.
Major, John D. Flannery, Ninth Regiment.
Assistant Surgeon, Claude R. Grosser, Ninth Regiment.
Captain, James C. Kenny, Company B, Ninth Regiment.
First Lieutenant, John A. Kenny, Company B, Ninth Regiment.
Second Lieutenant, Gordon Scott, Company B, Ninth Regiment.
Captain, Edmund D. Camp, Company D, Ninth Regiment.
First Lieutenant, William S. Hart, Company D, Ninth Regiment.
Second Lieutenant, Morris M. Keck, Company D, Ninth Regiment.
Captain, Evan R. Williams, Company E, Ninth Regiment.
First Lieutenant, Arthur Everett, Company E, Ninth Regiment.
Second Lieutenant, Ebenezer Williams, Company E, Ninth Regiment.
Captain, Michael J. Brennan, Company H, Ninth Regiment.
First Lieutenant, Edward J. Dougher, Company H, Ninth Regiment.
Second Lieutenant, Patrick Gibbons, Company H, Ninth Regiment.
Quartermaster, Fred. W. Eggers, Eighteenth Regiment.

Liverpool AND London AND Globe

INSURANCE COMPANY

United States Branch

Assets - - - - - *$9,339,545.33*

Surplus over all Liabilities - *$4,093,460.33*

LOSSES PAID IN THE UNITED STATES

SIXTY-NINE MILLIONS

PHILADELPHIA OFFICE: 331-337 Walnut Street

ATWOOD SMITH, General Agent

TELEPHONE

PINE BROS.

1018 CHESTNUT STREET
PHILADELPHIA

Manufacturing
Confectioners

Bonbons, Chocolates, Marshmallows

Specialties: Our 30 c. and 50 c. Assortment. Your own choice.

LOUIS E. STILZ & BRO.

MANUFACTURER OF

Equipments for the National Guard

155 North Fourth Street
Philadelphia

The New York Division of the Philadelphia & Reading Railway

The Philadelphia and Reading's New York Division is justly famous and this magnificent line connecting the two great cities, is being perfected every day in a way that is amazing to the public in general, and especially to those who are interested in Railway matters. The daily two-hour trains which speed their way back and forth between the two cities are marvels of comfort and cleanliness, and the stone-ballasted road bed, makes travel a pleasure rather than a necessary evil.

The other branches of the Philadelphia and Reading and the B. & O. needs no introduction to the traveling public. New York, Philadelphia, Baltimore and Washington are brought into close touch with each other by this marvelous system. The other branches of the Philadelphia and Reading are as perfect in their system as the New York Division, and the great road with its numerous branches and connections, forms a perfect network of steel in Eastern Pennsylvania, reaching almost every city in that portion of the State.

OLDEST ESTAB.ISHED MILITARY TAILORS

FOUNDED 1824 BY JACOB REED

Jacob Reed's Sons

1412 and 1414 Chestnut Street

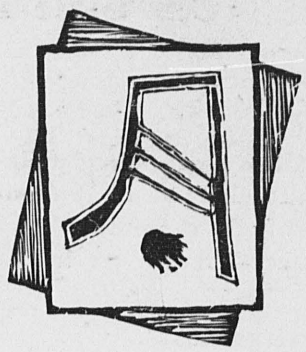
Philadelphia, Pa.

Uniforms and Equipments

For Officers and Enlisted Men

Lowest prices for standard qualities, best workmanship and accurate fit. Correct regulation guaranteed.

The New Regulation Cap $3.50, $3.75, $4.00, $4.25, $5.50. Finest Embroidery and Finish not equaled any where.



Armenia Insurance Company

Pittsburg, Pa.

ALBERT PITCAIRN, PRESIDENT
W. D. Mc GILL, SECRETARY

ASSETS JANUARY 1ST, 1898, $415,711.82

T. C. ANCONA, GENERAL AGENT
READING, PA.

STUART & CO.

MERCHANT TAILORS

1024 ARCH STREET PHILADELPHIA

UNIFORMS AND EQUIPMENTS
FOR ARMY, NAVY AND MILITARY SCHOOLS

Citizen's Suits, to order, $20.00 up.

Established 1837

FAMILY DEPARTMENT

Bailey's Pure Rye

HUEY & CHRIST
1209
Market Street
PHILADELPHIA

Endorsed by all prominent physicians of Philadelphia, as the best whiskey for invalids.

Crane Ice Cream Co.

N. W. cor. 18th and Filbert Streets, Philadelphia

Manufacturers of **Pure Ice Cream** For wholesale and retail trade

TELEPHONE

BAKERS OF ALL KINDS OF FANCY CAKES

Goods delivered to all parts of the city and shipped by Package Express to suburban points.

SEND FOR PRICE LIST